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Compiled & Edited By **M.Prior**

Thanks for buying this IB Diploma Psychology revision e-book.

I am a Psychology teacher with over 15 years of teaching experience, and recognise that students both often struggle to formulate answers to questions and have big gaps in their class-notes.

To make your revision easier I've taken information from the key IB and equivalent level psychology texts (listed at the back) plus new research on the web and collated it into one concise booklet designed to address *all* the specified learning outcomes. These outcomes will form the basis of the exam questions.

As you've already purchased this e-book you will be entitled to any subsequent updated version free of charge.

I hope you find it useful and good luck in your exams !

Best wishes,

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I apologise in advance for any typos, tautologies and editing/spacing errors typical of a cheap, self-published text, which I've had to rush out in time for the upcoming exam.

Contents

Chapter 1: Biological level of analysis

Chapter 2: Cognitive level of analysis

10   Discuss the use of technology in investigating cognitive processes

11   To what extent do cognitive and biological factors interact in emotion

12   Evaluate one theory of how emotion may affect one cognitive process

Chapter 3: Sociocultural level of analysis

1   Outline principles that define the sociocultural level of analysis

2   Explain how principles that define the sociocultural level of analysis may be demonstrated in research

3   Discuss how and why particular research methods are used at the sociocultural level of analysis

4   Discuss ethical considerations related to research studies at the sociocultural level of analysis.

5   Describe the role of situational and dispositional factors in explaining behaviour.

6   Discuss two errors in attributions

7   Evaluate social identity theory, making reference to relevant studies.

8   Explain the formation of stereotypes and their effect on behaviour

9   Explain social learning theory, making reference to two relevant studies.

10   Discuss the use of compliance techniques

11   Evaluate research on conformity to group norms.

12   Discuss factors influencing conformity

13   Define the terms "culture" and "cultural norms".

14   Examine the role of two cultural dimensions on behaviour

15   Using one or more examples, explain "emic" and "etic" concepts.

Chapter 4: Option 1 – Abnormal Psychology

1   To what extent do biological, cognitive and sociocultural factors influence abnormal behaviour?

2   Evaluate psychological research (that is, theories and/or studies) relevant to the study of abnormal behavior

3   Examine the concepts of normality and abnormality.

4   Discuss validity and reliability of diagnosis

5   Discuss cultural and ethical considerations in diagnosis

6a   Describe symptoms and prevalence of one disorder (Depression)

6b	Describe symptoms and prevalence of one disorder (Bulimia)
7a	Analyse etiologies of one disorder (Depression)
8	Analyse etiologies of one disorder (Bulimia)
9	Examine biomedical, individual and group approaches to treatment.
10	Evaluate the use of biomedical, individual and group approaches to the treatment of one disorder
11	Discuss the use of eclectic approaches to treatment.
12	Discuss the relationship between etiology and therapeutic approach in relation to one disorder

Chapter 5: Option 2 – Developmental Psychology

| 1	To what extent do biological, cognitive and sociocultural factors influence human development
2	Evaluate psychological research (that is, theories and/or studies) relevant to developmental psychology
3	Evaluate theories of cognitive development
4	Discuss how social and environmental variables (for example, parenting, educational environment, poverty, diet) may affect cognitive development.
5	Examine attachment in childhood and its role in the subsequent formation of relationships.
6	Discuss potential effects of deprivation or trauma in childhood on later development.
7	Define resilience.
8	Discuss strategies to build resilience
9	Discuss the formation and development of gender roles.
10	Explain cultural variations in gender roles.
11	Describe adolescence.
12	Discuss the relationship between physical change and development of identity during adolescence.
13	Examine psychological research into adolescence

the *Biological* level of analysis

1.Outline principles that define the biological level of analysis

2.Explain how these principles can be demonstrated in research

1. All behavior has a physiological basis

The biological level of analysis focuses on the many physiological factors that play a role in behaviour – brain processes, neurotransmitters, hormones and genes. Biological researchers therefore take a reductionist approach to the study of behavior – breaking complex human behavior into its smallest part eg. focusing on the role of a gene, a neurotransmitter, or a localized part of the brain.
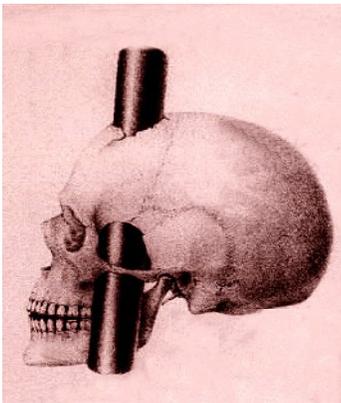
This can be seen in the case studies of Phineas Gage and David (Bruce / Brenda Reimer). Phineas Gage was a railroad worker who suffered a personality change after an iron rod shot through his brain. Damasio et al (1994) used imaging techniques to reconstruct the exact path of the iron rod. They were able to create a three-dimensional model of Gage's skull that showed that the iron bar went through prefrontal areas of the brain, thus showing a link between a specific part of the brain and social and emotional reasoning.

Similarly the case of David (Bruce/Brenda Reimer. 1974) born an inter-sexed boy, shows the influence of physiology. The gender-neutral theory of John Money meant the boy was reassigned and raised as a girl, but the experiment did not go according to plan as David's behavior remained masculinised. Such a case demonstrates that psychosexual development is not determined by external genitalia and socialisation but by chromosomes and hormones. This case raised a number ethical issues.

However behaviour is not the result of biological systems alone, it is also important to consider how the environment and cognition may interact with biological systems and affect physiology. This relationship is bidirectional i.e. biology can affect cognition and cognition can affect biology. This can be seen in the case of hippocampal damage and memory impairment, and emotions and cognition.

2. Behavior can be inherited

The biological level of analysis assumes that individuals may have a genetic predisposition towards certain behaviors. Human cell division may lead to changes in DNA sequences, change the genetic code and therefore cause genetic mutations. Genetic mutations may lead to variations in human physical and mental capacities.

Although researchers are not able to identify the role of specific genes in specific behaviours numerous studies have shown a link between genes and behavior. Two keys ways of researching this link are through correlational (twin and adoption studies) and linkage studies.

One of most well known and largest studies into twins is the Minnesota Twin Study (Bouchard et al, 1990), a longitudinal study that has been ongoing since 1979, conducted at the University of Minnesota.The study tracks down separated twins from across the world and participants complete approximately 50 hours of medical and psychological assessments including personality traits, occupational interests and mental ability. He found that an identical twin reared away from his or her co-twin seems to have about an equal chance of being similar to the co-twin in terms of personality, interests, and attitudes as one who has been reared with his or her co-twin.

This leads to the conclusion that the similarities between twins are due to genes, not environment, since the differences between twins reared apart must mainly be due to the environment

Grove et al (1990) studied 32 sets of MZ twins who were separated and raised apart shortly after birth. A continuous score for anti-social behavior in both childhood and adulthood was derived by interviewing each subject with a standardised interview schedule; as such this assessment of antisocial behavior was a self-report measure. Statistically significant heritabilities were obtained for anti-social behavior in both childhood (0.41) and adulthood (0.28)

Brunner's (1993) linkage study found the same genetic mutation in 28 members of a Dutch family all with a history of anti-social behavior. Over the course of four years Brunner and his colleagues analyzed the X chromosomes of all men and found a mutation in the gene for MAOA, a neurochemical in the brain. A MAOA deficiency is associated with impulsive, aggressive behavior . The same mutation was not found in any of the control group of 'non-aggressive' males.

3. Behaviour may be influenced by evolutionary processes

If we accept the principle that behavior is innate – genetically based – then it is logical to believe that evolutionary processes may have played a key role in genetic mutations and transmissions. Evolutionary processes include Darwin's theory of natural selection – natural selection is the process by which species adapt to their environment. Natural selection leads to evolutionary change when individuals with certain characteristics (adaptations) have a greater survival or reproductive rate than other individuals in a population and pass on these inheritable genetic characteristics to their offspring

Evolutionary psychology applies this process to human behavior - for example adaptations which would have promoted survival and reproduction such as aggression might be understood as an adaptive necessity in the competition for limited resources. This is widely demonstrated in research.

For example, a study by Chartrand & Bargh (1999) examined the chameleon effect in humans. The chameleon effect is the natural tendency to imitate each other's each other's body postures, hand gestures, speaking accents, and other behaviours. Their study showed that people who enagaged in more imitative behavior rated the person they imitated higher in terms of likeability, suggesting that mimicry (imitation) facilitated social interaction and bonding, an important adapative behavior for the success of the group.

Sexual selection is a type of natural selection but refer to selective pressures to choose the right mate. Evolutionary psychologists argued that men and women faced different adaptive problems in mate selection, which explain sex differences in reproductive strategies and mate selection. One example is sex differences in jealousy. David Buss (1992) carried out a"self-report" study where male and female participants were asked to imagine a romantic relationship where their partner is either having sex with someone else, or falling in love with someone else" and say which of the two would cause them the greatest distress. Female participants reported they would be more upset by the emotional infidelity more often than male participants, while sexual infidelity tended to be more upsetting for males than females.

4. Animal studies provide insight into human behaviour

About 7-8% of psychological research involves the use of animals. Although the range of species that have been used in various studies in psychology is broad, 90% of the animals used have been rodents and birds, principally rats, mice, and pigeons. Only about 5% of the animals are monkeys and other primates. Use of dogs or cats is rare. There are no basic differences between the physiologies of lab animals and humans. Both control their internal biochemistry by releasing the same endocrine hormones, both send out similar chemical transmitters from neurons in the CNS and PNS and both react in the same way to infection or tissue damage.

Experiments on animals have made an important contribution to advances in medicine and psychology that have brought major improvements in the health and well being of humans and animals. Studies you may have covered using animals;

Martinez & Kesner (1991) the role of acetycholine on memory (rats)

Rosenzweig and Bennett (1972) effects of deprivation on brain development (rats)

Matsuzawa (2007) Spatial memory (chimpanzees)

Zola-Morgan et al (2000) Hippocampal damage and memory (monkeys)

Harlow (1962) Love in infant monkeys

However the use of animals in psychological research raises huge ethical issues about the use and treatment of animals in research.

3. Discuss how and why particular research methods are used at the Biological level of analysis

Typical research method	Explanation / example	Evaluation
Lab experiments with animals	As we share an earlier common ancestry and physiology with many species eg. primates it is valid to make inferences about human behavior based on animal research. eg. Martinez & Kesner's (1993) study on the effects of acetylcholine on memory in rats and Zola-Morgan's (2000) study on the effects of damaged hippocampus in monkey's.	There is significant controversy about the use of animals in research. We cannot always accurately generalize from animals to humans.
Correlational studies / Brain scans	This method involves investigating a relationship between two variables. Most of the techniques to observe brain activity such as PET and MRI are basically finding a relationship between brain activity and a specific behavior. Similarly research into genetic influence on behavior has traditionally relied on correlational methods such Twin Studies. Twin studies comparing identical and non-identical twins, can suggest a link between genes and behavior eg. Grove's (1990) study into aggression found a concordance rate of .41 amongst child identical twins.	It is not possible to show causality (an experiment would be needed to follow up a correlation if you wanted to see if one thing caused another).

4. Discuss ethical considerations related to research studies at the biological level of analysis

NB: This includes suggestions for all 3 levels of analysis. Add your own examples to the table.

Ethical guideline (based on BPS)	explanation	comment	example
Consent	*Participants must be informed* about the nature of the study and agree to participate (ie. able to give informed consent)	Informed consent is very difficult to achieve without jeopardizing the real objective of the study.	Milgram (1963) participants had volunteered to take part in an experiment on learning, not obedience

Bandura (1963) - Children not able to give own consent |
| **Deception** | Information must not be withheld from participants, nor should they be mislead. | Studies involving deception are unethical but sometimes necessary. | Milgram (1963) participants were led to believe they were giving real electric shocks.

Schacter & Singer – participants believed they were taking a vitamin injection |
| **Right to withdraw** | Participants should have the right to withdraw at any time, regardless of whether or not they were paid for their participation. | Some participants feel obliged to continue, although they have been given the right to withdraw. | MIlgram (1963) pushed the line with trying to coerce participants to continue the shocks.

Zimbardo (Stanford Prison experiment) made it hard for prisoners to leave. |
| **Debriefing** | Following an investigation, participants should be fully informed about the nature and purpose of the of the research | A useful way of making sure participant is not affected by the study. Can help in cases of deception and when it was difficult to obtain informed consent. | Milgram fully debriefed his participants. |
| **Protection of participants** | Researchers have responsibility for protecting participants from physical or mental harm, including undue stress. | Not always guaranteed, though debriefing does help. Is the study justified if the participants are harmed in some way? | Milgram – induced stress and anxiety Zimbardo – psychological stress Bandura – encouraging aggression in young children Speisman – possible psychological distress Schacter & Singer – possible harm from injection and stress at 'angry' situation Money – Case of Brenda/Bruce (later David) Reimer – but through incredible and long term stress and deception |
| **Confidentiality** | Participants have the right to confidentiality. | Usually quite easy to maintain confidentiality. | Pseudonym was used in the case of H.M but not Clive Wearing

David Reimer was the subject of a documentary |

5.Explain one study related to localization of Function

It is widely agreed that the brain exhibits "**localization of function**." This means that different parts of the brain carry out different functions (e.g., vision, language, memory etc.) Therefore damage to a specific part of the brain results in a drastic loss in its corresponding function.

This view can be contrasted with the generalization view that functions are widespread and spread across large regions of the brain so that damage to any one small area causes only minimal loss of function. We know a great deal about brain localization from studies of patients with brain injury.

Broca (1861) Case study of 'Tan'

The process of identifying the parts of the brain that are involved in language began in 1861, when Paul Broca, a French neurosurgeon, examined the brain of a recently deceased patient who had had an unusual language disorder. Though he had been able to understand spoken language and did not have any motor impairments of the mouth or tongue that might have affected his ability to speak, he could neither speak a complete sentence nor express his thoughts in writing. The only articulate sound he could make was the syllable "tan", which had come to be used as his name.

When Broca autopsied Tan's brain, he found a sizable lesion in the left frontal lobe. Subsequently, Broca studied eight other patients, all of whom had problems producing speech but were able to understand it. All had similar language deficits along with lesions in their left frontal lobe – an area of the brain later known as Broca's area. This led him to conclude that there was a specific area of brain was associated with language. This condition became known as Broca's aphasia. Tan's brain is embalmed and preserved in a museum in Paris, and the damaged area is clearly visible. (thebrain.mcgill.ca) (Eysenck, p. 404)

Wernicke (1874)A decade later Carl Wernicke, a German neurologist, identified a syndrome with the opposite pattern of symptoms to Broca's aphasia. Patients who had a lesion in the posterior portion of the left temporal lobe could produce speech but it often lacked meaning. This syndrome subsequently became known as Wernicke's aphasia. Broca and Werncike's post-mortem studies on brain damaged patients made them conclude that language processing is localized. Wernicke went on to produce a model of the way the brain produces and analyses spoken language.

Evaluation

A series of case studies from the 19th century is not conclusive proof of a model, and it has been claimed that, firstly, "pure" forms of expressive and receptive aphasia are vanishingly rare, and secondly, damage to the cortex is rarely as localised as Broca and Wernicke assumed Modern research suggests " complex abstract human cognitive processing is only possible with the coordination of many smaller brain regions"

One model - the Gerschwind model, proposed in 1955 offers a more modular approach (ie. shows more modules are involved) and this model accounts for hearing, speaking, and reading operating in more complex process than the earlier model.

More recent research (Kim & Hirsch, 1997) suggests that bilinguals (learnt later in life) used a larger part of the brain, not just Brocas area, when thinking in that language. This supports the view of neuroplasticity – which refers to the ability of the human brain to change as a result of one's experience (the brain is plastic). Neuroplasticity challenges the view of localisation

6. Explain, using examples, the effects of neurotransmission on behaviour

example exam approach - In this answer I will explain how neurotransmitters affect memory and schizophrenia

What is a neurotransmitter ?

A neurotransmitter is a chemical messenger that carries, boosts and modulates signals between neurons and other cells in the body. Neurotransmitters play a major role in everyday life and functioning. Scientists do not yet know exactly how many neurotransmitters exist, but more than 100 chemical messengers have been identified.

It is estimated there are between 10 and 100 billion neurons in the nervous system. The neurons send electrochemical messages to the brain so that we can respond to stimuli – either from the environment or from internal changes in the body. The method by which these messages are sent is called neurotransmission (Crane, p. 39).

Neurotransmitters have been shown to have a range of different effects of human behavior. They can affect behavior as varied as mood, aggression, appetite, memory and mental illness.

1.Memory

Research has shown that memory has essentially the same functional structure and underlying biochemistry across the animal kingdom. Studies of learning and memory (Kandel, 2000) in a sea slug, *Aplysia*, therefore have resulted in a model of learning and memory that seems to be broadly applicable to all animals. Kandel showed that memory starts as a biochemical response in the brain following sensory input. The first change comes at the level of the synapse--junctions between nerve cells.

Acetylcholine, a well known neurotransmitter, plays a critical synaptic role in the initial formation of memory. In other words we can think of **short-term memory** as resulting from a transient change in neurostransmitter levels at synapses.Treatments for memory-deficit problems, like Alzheimer's, in humans often involve enhancing the retention of acetylcholine in brain synapses.The study by Martinez & Kesner demonstrates the importance of acetycholine is memory formation

Martinez & Kesner (1999)

Rats were trained to go through a maze, where they received food at the end. Once the rats had been trained to do this they were broken into three groups;

Group 1: Rats were injected with a chemical which blocked acetycholine receptor sites (thus decreasing available acetycholine)

Group 2: Rats were injected with an enzyme which breaks down and helps the re-synthesis of acetycholine

Group 3: Control group, which were not given any injections

Results showed that rats in Group 1 were slower at finding their way round the maze and made more errors than either groups 2 or 3. Group 2 rats on the other hand ran through the maze and found the food even more quickly than the control group and took fewer turns.

Evaluation

This was a well designed experiment with a control group which allowed the researchers to establish a cause-and-effect relationship between high levels of acetycholine and memory

However studies that use animals also raise the question of generalisability and applicability to humans

Nevertheless as mentioned earlier it is assumed that memory processes are the same for all animals

2.Neurotransmitter imbalances and mental illness

Neurotransmitter imbalance is one theory about the cause of mental illnesses. The basic idea is that neurotransmitter imbalances within the brain are the main causes of mental illnesses and that these conditions can be improved with medication which corrects these imbalances.

For example in the 1950s certain drugs that breakdown the monoamine neurotransmitter were accidentally discovered to be effective in the treatment of depression

Research into other mental illnesses such as schizophrenia also found that too little activity of certain neurotransmitters was correlated to this disorder

Schizophrenia is an extremely complex mental disorder and is probably the most distressing and disabling. The first signs of schizophrenia tend to surface in adolescence or young adulthood. People with **schizophrenia** suffer from problems with their thought processes. These lead to **hallucinations, delusions, disordered thinking**, and **unusual speech or behaviour**. Symptoms affect the ability to interact with others, and often people with schizophrenia withdraw from the outside world.

Dopamine hypothesis

According to this hypothesis;
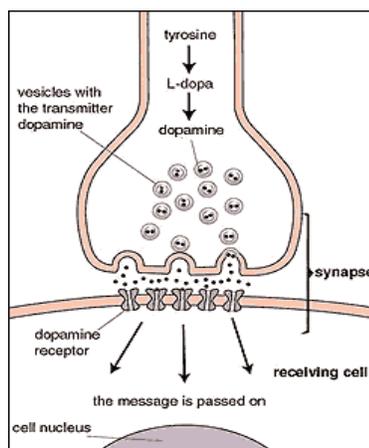
- Schizophrenia is associated with increased activity at dopamine receptor
- sites. Antipsychotic (treatment) drugs exert their clinical effect by
- reducing increased dopamine activity.
-
- The hypothesis is based on experimental and accidental drug combinations and types that either increase dopamine activity and therefore schizophrenic symptoms or decrease dopamine activity and therefore reduce symptoms.
-

14

- So for example it is supported by the fact that amphetamines and cocaine, which trigger the release of dopamine have been found to exacerbate the psychotic symptoms in schizophrenia.
- Another accidental finding is that a drugs which block dopamine function, such as chlorpromazine reduce psychotic symptoms.

Evaluation

All the evidence provided is correlational. It implies an association between schizophrenia and neurotransmitters in the brain. It does not prove cause and effect. It could be that schizophrenia has caused the abnormal chemical levels rather than the other way around.

Neurotransmitter imbalances theories are not based individual laboratory tests. For example, someone suffering from schizophrenia is not given chlorpromazine on the basis of a laboratory test which shows that his or her dopamine level is too high. The prescription is based on a hypothesis which has not been physically proven.

Chlorpromazine only reduces the positive symptoms of schizophrenia such as hallucinations and delusions. Therefore excessive dopamine can at best only explain some types of schizophrenia. Furthermore Chlorpromazine makes little or no difference to 30% of schizophrenics.

Drugs (such as chlorpromazine) have their effect on the brain almost immediately, but they take weeks to affect the behaviour of the patients. The dopamine hypothesis is unable to explain this delay.

Finally, critics have expressed concern at the continued over-promotion of neurotransmitter imbalance theories as factual by pharmaceutical companies. They believe the general population and have accepted this hypothesis into their understanding of mental illness uncritically. They have pointed to the lack of an established chemical *balance* (without which, they claim, the notion of an "imbalance" is meaningless

7. Explain functions of two hormones on behavior, using one or more examples

example exam strategy - In this answer I will explain the role of adrenaline and oxytocin on behaviour

The endocrine system is made up of glands that produce and secrete hormones. Hormones are chemical messengers created by the body. They transfer information from one set of cells to another to coordinate the functions of different parts of the body.

These hormones regulate the body's growth, metabolism the physical and chemical processes of the body), and sexual development and function. The hormones are released into the bloodstream and may affect one or several organs throughout the body.

In contrast a neurotransmitter is released from a nerve cell, and its function is to bridge the synapses (gaps) between neurons. This mode of transmission is in general much faster than the endocrine transmission

Oxytocin

Oxytocin is not only a hormone that circulates in the bloodstream, it is also a neurotransmitter that travels along nerve cells in the brain and elsewhere.

It plays a role in inducing contraction and lactations, and is released with touches and hugs. It is associated with bonding between and a mother and her child.

Recent studies have begun to investigate oxytocin's role as an effective mediator of social behavior. Oxytocin has been found to be beneficial for reducing anxiety and stress, producing feelings of well-being, empathy, bonding, and sexual arousal. For this reason, it is sometimes referred to as the "love hormone ".

DItzen (2009) conducted a study at the university of Zurich in which adult couples were randomly assigned into two groups: one group of participants were administered oxytocin intra-nasally and the other group received placebo, also in a nasal spray. She then asked them to discuss a subject they often disagreed about and videotaped the subsequent conflict discussions in a lab setting. Ditzen then analyzed the effects of the hormone given to couples, and found that it reduced levels of the stress hormone cortisol and increased positive communication behavior, compared to the placebo.

Oxytocin may also play a role in autism and may be an effective treatment for autism's repetitive behaviors. Two related studies in adults, in 2003 and 2007, found that oxytocin decreased repetitive behaviors and improved interpretation of emotions (Jacob et al, 2007). More recently, intranasal administration of oxytocin was found to increase emotion recognition in children as young as 12 who are diagnosed with autism spectrum disorders (Wermter, 2009).

Adrenaline

Adrenaline (also known as epinephrine) is a hormone secreted by the adrenal gland. **Adrenaline helps the body to adjust to sudden stress**. When a person becomes angry or frightened, the adrenal gland releases adrenaline into the blood. Adrenaline increases the strength and rate of the heartbeat and raises the blood pressure. It also speeds up the conversion of **glycogen** into glucose, which provide energy to the muscles. These physiological changes are responsible for the **'fight or flight' response.**

The role of adrenaline in the emotion of anger was demonstrated in the classic study by Schacter & Singer (1962). They gave 3 groups of participants an adrenaline injection (epinephrine) and 1 group a placebo, and then put them into situations designed to create an emotional response of anger or happiness. Some participants were misled or given no information and the researchers predicted that they would blame their physical state on the situation, therefore reporting higher levels of emotion. Other participants were told the effects of the injection and so would not blame the situation as they already knew why they felt that way. Participants who were not given information about their condition reported their feelings as either angry or happy depending on the condition they were in.

Schacter & Singer concluded that a stimulus triggers a physiological response (adrenaline release) and at the same time the stimulus is interpreted in the brain taking into account previous experiences of similar situations. So emotion is an interaction of both cognitive and hormonal factors

8.Discuss two effects of the environment on physiological processes

example exam approach - In this answer I will discuss the effects of deprivation on neuroplasticity and how social behaviours affect mirror neurons in the brain.

1. Effects of deprivation on neuroplasticity

Brain plasticity (also referred to as neuroplasticity) refers to the ability of the brain to respond to and be modified by experience, to compensate for injury and disease and to adjust its activities in response to new situations or to changes in their environment.

Before the 1960's the cerebral cortex part of the brain (higher order thinking) was believed to be influenced only by genetics and was therefore considered unchangeable.

Only the hippocampus (in the limbic system) where memories are formed was considered to be plastic. This was based on research by Hebb (1949) who hypothesized that memories are stored in the brain in the form of networks of neurons. When presynaptic and postsynaptic neurons fire action potentials together the strength of the synaptic connections between them are enhanced. As a result , synaptic associations would grow stronger and tend to persist (cells that fire together, wire together). These assembled cells represent a stored memory.

Eric Kandel (2000) investigated biochemical changes in neurons associated with learning and memory storage. Some of the synaptic changes observed by Kandel's laboratory provide examples of Hebbian learning.

Effects of environmental enrichment and deprivation on brain plasticity

Hubel and Weisel (1970) demonstrated that depriving newborn kittens of normal visual experience by suturing one eye closed for 8 weeks resulted in a lack of normal connections between the eye and the visual cortex – and caused blindness even after the eye had been reopened.

Rosenzweig and Benett (1972) conducted an experiment to measure the effect of either enrichment or deprivation on the development of neurons in the cerebral cortex

The researchers randomly assigned 12 sets of three male rats (each set from the same liter) into one of three circumstances – remaining in the laboratory cage with the rest of the colony, an enriched environment cage and a deprived cage. 12 male rats in each circumstance spent 4 to 10 weeks in their respective environments

The standard laboratory colony cage contained several rats in an adequate space with food and water always available. The enriched, stimulating environment was virtually a rat's Disneyland where 6-8 rats lived in a "large cage furnished with a variety of objects with which they could play. The deprived environment was a slightly smaller cage isolated in a separate room in which the rat was placed alone with adequate food and water

Later post mortems revealed the brains of the enriched rats were different from the deprived rats in many ways. The same patterns of differences are found when the experiments are replicated. The most consistent effect of experiment was the ratio of the weight of the cortex to the weight of the rest of the brain (the sub-cortex).

The cerebral cortex (responds to experience and is responsible for movement, memory, learning, and all sensory input) of the enriched rats was significantly heavier and thicker.\Cortical thickness increases even further if the rats are placed with other rats. The combination of having company and many interesting toys created the best conditions for developing cerebral thickness.

There were no significant differences found between the two groups of rats in the number of brain cells (neurons) but the enriched rats produced larger neurons.

The synapses of the enriched rats' brains were 50% larger than those of the deprived rats.

Such studies show that brains are physically sculpted by experience. Aspects of the brain can be changed as we go through experiences. As a person develops a greater number of skills and abilities, the brain actually becomes more complex and heavier. People who were unable to have certain experiences, will have that part of their brain be significantly less developed, less convoluted, and thinner in comparison to those who have had those experiences. As long as that specific part of the brain is being used, no matter how old the person is, it isn't lost. If learning always results in an increase of dendritic branchings, then the findings from animal studies which show brain plasticity in response to environmental stimulation are important for the human cortex as well.

2. Effects of social behaviours on mirror neurons

Another way in which the brain and environment interact is through the activity of the recently discovered mirror neurons. Mirror neurons are neurons that fire when an animal performs an action or when the animal observes somebody else perform the same action.

Rizzolatti, Gallese, and Fogassi (1996), at the University of Parma, Italy discovered them by chance . During a study of neuron dynamics electrodes had been put into a few individual neurons in a macaque monkey's premotor cortex to monitor neural activity as the monkey reached for different objects. The discovery came when one of the researcher walked into the room where the monkey was and reached out and picked up a peanut. As the monkey watched, its premotor neurons fired just as they had when the monkey had picked up the peanut.

There is evidence that a similar observation/action matching system exists in humans. Iacoboni (2004) asked participants to watch films of people reaching for various objects within a tea-time setting – a teapot, a mug, a pitcher of cream, a plate of pastries, napkins — in different contexts. In every instance, a basic set of "reaching" mirror neurons fired. But different additional sets of mirror neurons would also fire depending on what expected action was suggested by the setting — neatly set for the beginning of tea time, for instance, versus looking as if tea had just been finished (pastries eaten, cup dirty) so that it looked ready to be cleaned up. If the viewer expected the hand to pick up a teacup to drink, one set fired; if the viewer expected the hand to pick up a cup to clean it, another set would fire. Thus mirror neurons seem to play a key role in perceiving intentions — the first step not just in understanding others but in building social relations and empathy.

Some scientists such as V.S. Ramachandran consider mirror neurons one of the most important recent discoveries in neuroscience. Some scientists such as V.S. Ramachandran consider mirror neurons one of the most important recent discoveries in neuroscience, possibly giving insight into the neurobiological foundations of a number of behaviours including empathy, and lack of empathy in disorders such as autism.

However, despite the excitement generated by these findings, research is still in its infancy. To date no widely accepted neural or computational models have been put forward to describe how mirror neuron activity supports cognitive functions such as imitation.

9.Examine one interaction between cognition and physiology in terms of behaviour. Evaluate two relevant studies.

example exam approach - In this answer I will examine the interaction between cognition and physiology in relation to emotion. The two studies I will evaluate are Schacter & Singer's (1962) and Speisman's (1964)

The study of emotions raises the issue of whether an emotion is primarily a physiological experience or primarily a cognitive one. Research suggests emotions are in fact an interaction of both.

Schacter (1964) was the first theorist to bring together the two elements of physiological arousal and cognition. It is sometimes known as the two-factor theory of emotion. For an emotion to be experienced, a physiological state of arousal is necessary AND situational factors will then determine how we interpret this arousal. In other words, an event causes physiological arousal first. You must then identify a reason for this arousal and then you are able to experience and label the emotion.

A classic study by Schacter & Singer (1962) supports these ideas. Their study tested the theory that an emotion is made up of cognitive appraisal (labelling the emotion) and physiological arousal (adrenaline and the physical changes it produces). They gave 3 groups of participants an adrenaline injection (epinephrine) and 1 group a placebo, and then put them into situations designed to create an emotional response of anger or happiness. Some participants were misled or given no information and the researchers predicted that they would blame their physical state on the situation, therefore reporting higher levels of emotion. Other participants were told the effects of the injection and so would not blame the situation as they already knew why they felt that way. The results were as predicted, indicating that if someone feels physiologically aroused and doesn't know why they will look at their situation in order to label their emotion.

Schacter & Singer concluded that a stimulus triggers a physiological response and at the same time the stimulus is interpreted in the brain taking into account previous experiences of similar situations. The brain produces the actual emotion that the person experiences, through cognitive factors, and the ANS produces the degree to which that emotion is felt. So emotion is an interaction of both cognitive and physiological factors

Evaluation

This was a well-controlled study with several conditions to test the theory. However the sample was not representative (all male) and males may have different emotional reactions to females. Furthermore the sample were offered grade points to take part, so they may have felt obliged to participate in and continue with the study. It is ethically questionable to both inject participants with substances and it may be distressing to induce anger.

A later theory by Lazarus also illustrates the interaction of physiology and cognitive factors, though he better explained and emphasized the role of cognition in emotion.

Lazarus (1990) argued that an emotion-provoking stimulus triggers a cognitive appraisal, which is followed by the emotion and the physiological arousal. He suggested we initially make a brief analysis of a situation which he called a cognitive appraisal. This appraisal determines the level of physiological arousal and the specific type of emotion to be experienced. identified three stages of appraisal

1. Primary appraisal (relevance) – in which we consider how the situation affects our personal well-being or how threatening the situation is.
2. Secondary appraisal (options) - we consider how we might cope with the situation
3. Reappraisal (ability to handle emotion) - Reappraisal refers to whether the emotion / situation is changeable or manageable

His study is supported by Speisman (1964) He showed college students a film called 'Sub-incision', a graphic film about an initiation ceremony involving unpleasant genital surgery.

The aim was see if the people's emotional reactions could be manipulated. The experiment deliberately manipulated the participants appraisal of the situation and evaluated the effect of the type of appraisal on their emotional response.

One group saw the film with no sound. Another group heard a soundtrack with a "trauma" narrative emphasising the pain, danger, and primitiveness of the operation. A third group heard a "denial" narration that denied the pain and potential harm to the boys, describing them as willing participants in a joyful occasion who "look forward to the happy conclusion of the ceremony." The fourth group heard an anthropological interpretation of the ceremony. Physiological (heart rate and galvanic skin tests) and self-report measures of stress were taken. Those who heard the trauma narration reacted with more stress than the control group (no sound); those who heard the denial and scientific narrations reacted with less stress than the control group. Thus supporting the theory that it is how we appraise a situation that determines our level of emotional reaction.

Evaluation

This was a well-controlled lab experiment, including scientific measures of emotional reactions – heart rate and galvanic skin tests. Such results seem to support Lazarus's theory that it is not the events themselves that elicit emotional stress but rather the individual's interpretation or appraisal of those events. However, as it was a lab experiment the videos were an artificial test of emotional reaction. It may also be unethical to expose participants to high levels of discomfort.

10.Discuss the use of brain imaging technologies in
investigating the relationship between biological factors and behaviour

Brain imaging

In recent decades the invention of new brain-imaging devices has led to spectacular advances in sciences ability to look into the brain.

Modern imaging began with [computerized axial tomography](#) (CAT or CT scanning) in the early 70s,' allowing detailed anatomic images of the brain to become available for diagnostic and research purposes. The CAT scan is a computer-enhanced X-ray of brain structure. Multiple X-rays are shot from many angles, and the computer combines the readings to create a vivid image of a horizontal slice of the brain. The entire brain can be visualized by assembling a series of images representing successive slices. Of the modern brain imaging techniques the CAT scan is the least expensive and it has been widely used in research.

In research on how brain and behavior are related PET scans are proving especially valuable. Whereas CAT scans can portray only brain structure, PET scans can examine brain function, mapping actual activity in the brain over time. In PET scans radioactively tagged chemicals are introduced into the brain. They serve as markers of blood flow or metabolic activity in the brain which can provide a colour-coded map indicating which areas of the brain become active when participants do a number of activities. In this way neuroscientists are using PET scans to better pinpoint the brain areas that handle various types of mental activities.

Because PET scans monitor chemical processes teay can also be used to study the activity of specific neurotransmitters. For example Raine et al (1997) used PET scans in identifying reduced neural activity in certain parts of the brains (corpus callosum, amygdala, hippocampus) of people charged with murder but pleading not guilty for reasons of insanity.

Magnetic Resonance Imaging (MRI) has been in widespread use since the early 1980s. It uses magnetic fields , radio waves and computerized enhancement to map out brain structure. MRI scans provide better images of brain structure than CAT scans.

The usefulness of MRI to psychologists really blossomed in the 1990s with the development of a variation called *functional MRI.* FMRI, works by detecting the changes in blood oxygenation and flow that occur in response to neural activity – when a brain area is more active it consumes more oxygen and to meet this increased demand blood flow increases to the active area.

- ◉ The measurement of blood flow, blood volume and oxygen use is called the **blood-oxygen-level-dependent** (**BOLD**) **signal**.
- ◉ In a typical fMRI study, a subject lies in an MRI scanner and is scanned, first at rest with eyes closed, to provide a baseline reading, and then while performing some mental task – identifying faces, threading a computerized maze, engaging in a role-playing game, answering an ethical problem — while the scanner takes multiple images.
- ◉ In the most common fMRI technique, called BOLD (for blood oxygen-level dependent) fMRI, the MRI machine measures increases in blood flow by spotting a change in magnetism that occurs when a blood surge raises the ratio of fresh, oxygenated hemoglobin to "used," deoxygenated hemoglobin, which has a significantly different charge.

◉ The areas receiving these surges show as brighter colors on the fMRI images, red changing to yellow as flow rises, thus producing activation maps showing which parts of the brain are involved in a particular mental process.

Advantages of fMRI

- It can noninvasively record brain signals without risks of radiation inherent in other scanning methods, such as CAT or PET scans.
- It has high spatial resolution. 2–3 mm is typical but resolution can be as good as 1mm.
- It can record signal from all regions of the brain, unlike EEG/MEG which are biased towards the cortical surface.
- Localising brain activity during a task is easier with fMRI, and more precise than with PET scans

Brain imaging looks set to provide new tools that could redefine the discipline of psychology. Invisible psychological processes that psychologists have had to infer will become increasingly visible and quantifiable. New breakthroughs could be possible that would help psychologists understand how the brain responds in a social context. **http://humanitieslab.stanford.edu/2/182**

Disadvantages of fMRI

- The images produced must be interpreted carefully since correlation does not imply causality, and brain processes are complex and often non-localized.
- fMRI can produce false positives. One team of researchers (Bennet,2009) studying reactions to pictures of human emotional expressions reported a few activated voxels in the brain of a dead salmon.
- fMRI collects data in voxels – a combination of volume and pixels. Each voxel contains thousands of neurons, so for the image to light up thousands or even millions of neurons must light up in order for the scan to perceive them. But some neurons that are not important to a cognitive task may not draw as much blood as other neurons or may use little blood because they are more efficient. In both cases the scan might not detect important neuron activity.
- FMRI's measure the BOLD signal - Blood-oxygen-level dependence . However blood flow is an indirect way to view neuronal activity. The BOLD response peaks approximately 5 seconds after neuronal firing begins in an area. Thus the image is recorded more slow than neural activity. This means that it is hard to distinguish BOLD responses to different events which may occur within that short window of time. BOLD signals therefore are only an indirect measure of neural activity, susceptible to influence by non-neural changes in the body
- Most fMRI studies – probably 95% — use "univariate" processing. That is, they use one variable algorithms to process data, which minimisies the distributed nature of processing in neural networks and makes the brain seem more localized than it is in reality. Scientists using univariate processing see all of the voxels (volume of pixel) involved, but not in a way that shows their relationships. Statistical methods known as multivariate analysis can break down each voxels activity and analyze the interchanges among brain areas, but the complexity of those analyses has so far limited their use
- Finally, results of fMRI scans may be misleading. Although numerous studies have compared the neuroanatomical images of children with ADHD to children without ADHD and found structural differences , these studies have often failed to account for the prior use of medication such as Ritalin, which can be confounding factor in ADHD research.

Examples of fMRI studies in psychology

Berns et al (2005) used functional magnetic resonance imaging (fMRI) to measure what happens inside the brain when people either conform to a group's judgment, or go against it. He attempted to replicate Solomon Asch's conformity experiment, only using mental rotation rather than line lengths, and monitoring people with fMRI during the experiment. He was trying to distinguish two competing hypotheses of conformity: (1) that people perceive accurately but then report consistently with the group for social reward, or (2) that people actually perceive differently based on what the rest of the group perceives.

The results of the study showed evidence that when people conform to a group's wrong judgment changes in brain activity were noted in the visual and perceptual parts of the brain ie. There is a change in perception. The scans showed that the part of the brain that is normally activated during conscious decision-making was not activated. This suggests that groups have the capacity to influence our perceptions of the world.

(This study will make more sense after we study conformity under the Socio-cultural level of analysis)

Ethical issues of brain-imaging

- fMRIs allow scientists to see the structure of the brain as it completes tasks. How should we use this information ? How accurate are the scans, for example what are the implications of false positives ? (and false negatives). Do the scans invade ones privacy?
- Businesses are using fMR'Is to convince people that the brains are different when using different products, called neuro-marketing. **Neuro-marketing** is a new field of marketing that studies consumers' sensorimotor, cognitive, and affective response to marketing stimuli. Researchers use technologies such as fMRI to learn why consumers make the decisions they do, and what part of the brain is telling them to do it. Such Neuro-imaging data could potentially target marketing to specific people or groups. Many people would find this tactic unethical because it exploits a biological 'weakness' that only exists in some people. To what extent should use information about the brain to change people ? Should employers and insurance companies have access to a person's biological data ?
- Finally, to what extent should people be responsible for their behaviour ? This applies to genetic research too. Raine's study (using PET scans) shows abnormal neuronal activity in certain parts of the brain – does this absolve the criminal of responsibility for their crime ?

Jamison, Jennie Brooks (2009) Levels of Analysis in Psychology
http://daviddobbs.net/page2/page6/page6.html

11. With reference to relevant research studies, to what extent does genetic inheritance influence behaviour?

example exam approach - In this answer I will discuss to what extent genes influence aggressive behavior. I will look at the influence of genes through twin studies and linkage studies. I will then discuss environmental influences on aggression with reference to Bandura's study. I will conclude with reference to Caspi's study, which highlights the interaction of genes and environment in explaining aggression.

Anti-social behavior/aggression

Studies of twins raised apart

Aggression seems to have a strong genetic component. Grove et al (1990) studied 32 sets of MZ twins who were separated and raised apart shortly after birth. A continuous score for anti-social behavior in both childhood and adulthood was derived by interviewing each subject with a standardised interview schedule; as such this assessment of antisocial behavior was a self-report measure. Statistically significant heritabilities were obtained for anti-social behavior in both childhood (0.41) and adulthood (0.28).

However, researchers of such studies must rely on data from twins who have been separated at various ages and in a variety of circumstances, Some 'separated' identical twins may have spent considerable time in a similar environment before separation or they might have been 'separated' but have actually lived in very similar environments. They may also been reunited for a considerable time before their personality and intelligence were assessed, so that they had a chance to share an environment for a time and to become more alike.

Linkage studies and aggression (Brunner, el, 1993)

The results of a series of twin studies may suggest a particular behavior has a genetic component but they can't provide the location of the implicated gene or genetics. This approach attempts to find a linear approach between and gene and a behavior. The linear approach assumes genes directly causes behavior.

In linkage studies the researcher looks for a trait (behavior) that appears frequently in an extended family, then checks to see if there is a DNA segment, or marker, on a particular chromosome that contains a variation that is the same in the members of the family with that trait.

If the researcher finds that the same marker is present consistently in the family members who have that trait, he assumes that the marker he is studying is either close to or is the gene that codes for that trait.

Such studies have been successful in locating genes that cause such genetic disorders such as Huntington's disease. This single gene abnormality was located in 1993. If one parent has the disorder there is a 50% chance their child will inherit the disorder.

Brunner et al (1993) conducted a study with a large Dutch family, who had a long history (over five generations) of anti-social behavior. Over the course of four years Brunner and his colleagues analyzed the X chromosomes of 28 members of the Dutch family . In their study they found a point mutation in the structural gene for MAOA, a neurochemical in the brain. A MAOA deficiency is associated with impulsive, aggressive behavior . The same mutation was not found in any of the control group of 'non-aggressive' males.

These results have not been confirmed in any additional family studies, which lead to a need for more studies to determine if other families share similar results (Brunner et al., 1993). However, this one family study does seem to suggest that genetics play an important role in antisocial or criminal behavior

Environmental Influences

Thus far it has been established through research and various studies that genetics do influence criminal or antisocial behavior. However, researchers also agree that there is an environmental component that needs to be examined.

Social Learning theory (1965)

Bandura argued that individuals, especially children, are not born with aggressive tendencies but learn aggressive behaviours from observing others, either personally or through the media and environment. His Bobo doll studies powerfully demonstrated the imitation of aggressive behaviours by children. In a lab experiment, children observed an adult model beating an inflatable doll. Children who watched the aggressive models showed both physical and verbal aggression when later put in a room by themselves with the toy. In fact 88% of the children imitated the aggressive behavior. Bandura also argued that aggressive behaviour is strengthened and maintained if it has a desirable outcome (reinforcement). Such a study clearly demonstates the influence of the environment, although there are challenging studies such at the St.Helena TV study. Children, in the remote Pacific Island of St. Helena, who were newly exposed to TV did not demonstrate increased levels of violence.This suggests other factors must account for aggression, than mere observation**.**

Conclusion: Gene-environment interactions

Key study: Gene – Environment interactions in aggression Caspi (2002) Finally, Caspi & Moffitt (2002) have argued that aggression is in fact an interaction of genes and the environment. Their study found a link between a genetic variant causing low levels of MAOA and increased levels of antisocial behavior in people who had been abused as children. The MAOA gene metabolises neurotransmitters such as serotonin, which regulates impulsive behavior. Variants of MAOA have been associated with aggression.

They studied a representative birth cohort of 442 male children in New Zealand to determine why some children who suffer childhood abuse grow up to develop antisocial behaviors whereas others do not. The children were studied for 26 years, from birth to adulthood. Their life histories had been recorded at various intervals since they were born. Moffitt's team measured instances of maltreatment during the first ten years of life, including rejection by the child's mother assessed when the child was three years old, frequent changes of the primary caregiver, and physical and sexual abuse. They also evaluated the test subjects' records of antisocial behavior, which is generally defined as "behavior that violates the rights and safety of others," according to Moffitt. Specifically, they used the American Psychiatric Association's criteria for adolescent conduct disorder and antisocial personality disorder, court records for violent crimes, and evidence of aggressive personality traits from a psychological assessment at age 26.

The researchers determined which version of the *MAOA* gene each test subject had. 30% of the men carried MAOA variant (low levels). Of this 30%, 85% showed some form of anti-social behavior overtime.The findings provide initial evidence that genotypes can moderate children's sensitivity to environmental stress. These findings may partly explain why not all victims of maltreatment grow up to victimize others; some genotypes may promote resistance to stress and trauma. It may also show that a caring environment may control the negative effects of the MAOA gene. **However** replication studies of the interaction between MAOA genotype and maltreatment are few, showing both similar and non-similar results.

Conclusion
Psychologists now believe that an individual may have a genetic predisposition towards a certain behavior, but without the appropriate environmental stimuli this behavior may not be manifested (eg a genetic predisposition towards depression, but a happy childhood environment)

12. Examine one evolutionary explanation of behaviour:

"Our modern skulls house a Stone Age mind " *(Cosmides & Tooby)*

- Evolutionary psychology is a combination of evolutionary biology and cognitive psychology. It sees the mind as a set of evolved mechanisms, or adaptations, that have promoted survival and reproduction. All behavior is a result of these evolved mechanisms.
- To understand evolutionary psychology it is necessary to have a basic understanding of genes, inheritance, and the principles of natural selection.

The process of evolution

| Animals or plants with "better" characteristics (e.g. disease-resistant; able to obtain more food) | → | These become bigger and stronger (i.e. "fitter") | → | They therefore have more offspring | → | The next generation has a higher proportion of the "better" characteristics | → | Very many generations later, the whole species has changed to the new form |
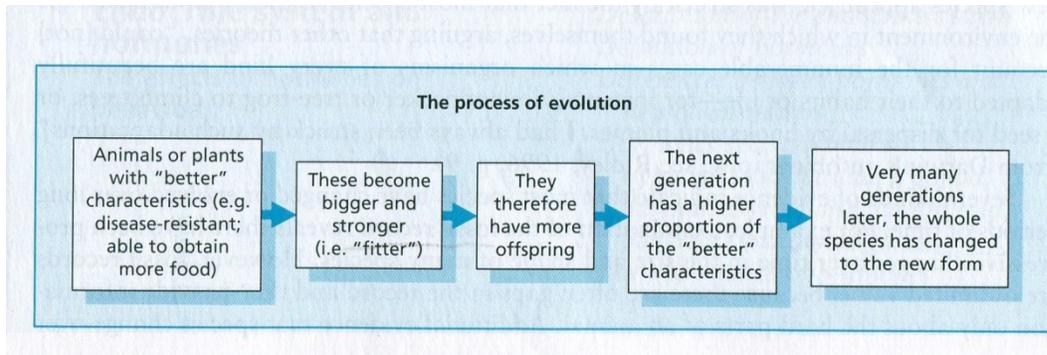
Darwin and Natural selection

- " Genetics is the key to the past. Every human gene must have an ancestor….each gene is a message from our forebears and together they contain the whole story of human evolution"   (Steve Jones, 1994, British Geneticist)
- Evolutionary psychology is inspired by the work of Charles Darwin and applies his ideas of natural selection to the mind.
- Darwin (1859) observed the relationship of plants and animals all over the world, including organisms (finches) on islands off the coast of South America and those on the mainland. These observations showed that they were related but not identical. This led Darwin into believing that over time things must adapt to suit their environment
- Darwin's theory argues that all living species, including humans, arrived at their current biological form through a historical process involving random inheritable changes (genetic mutations)
- Some changes are adaptive, that is, they increase an individual's chances of surviving and reproducing.
- Changes of this kind are more likely to be passed on to the next generation (natural selection), while changes that hinder survival are lost.
- Examples of adaptations which would have promoted survival and reproduction are behaviours such as aggression which might be understood as an adaptive necessity in the competition for limited resources

    One study demonstrating an adaptive behavior is that by Chartrand & Bargh (1999) who investigated the human tendency to mimic the behavior of another in a social situation. They called this the 'chameleon effect' and argued that the unconscious habit of imitating behaviours such as foot-tapping enables rapport-building and social bonding between individuals. Social bonding would have been essential for survival of the group, in terms of securing and sharing food and shelter.

Chartrand & Bargh found that participants who were most likely to mimic behaviours of a confederate were more likely to rate them higher in terms of likeability in a later part of the experiment. This supports their hypothesis that unintentional mimicry and imitation facilitates social bonding.

Evaluation of Evolutionary explanations

- The study of evolution and evolutionary psychology has been supported by animal studies. Darwin noted that humans have a number of behaviours in common with other animals. One recent study investigated spatial memory in chimpanzees – primates are the closest relatives to humans.
- Matsuzawa (2007) took three pairs of chimps and taught them to recognize the numerals 1 – 9 on a computer monitor. Both the chimps and the human participants were later seated at a computer terminal, where the numerals flashed up very briefly on a touch-screen monitor in random sequence. The numbers were then replaced with blank squares, and the participant had to remember which numeral appeared in which location, and touch the squares in the appropriate sequence.
- The human participants made more errors and their accuracy decreased as the numbers were replaced with blank squares more quickly. The chimpanzees showed remarkable memory for the spatial distribution of numbers, with no differences when numbers were shown for shorter durations. Psychologists argue that it is a necessary adaptation for chimpanzees to have this type of memory so they remember the location of food resources and potential dangers in their natural habitat. Humans, however, have lost this ability in the development of other cognitive skills such as language (Crane, p. 57).
- Critics of evolutionary psychology however maintain that generated hypotheses are simply modern, just-so stories. A **just-so story**, also called the ad-hoc fallacy is a term used to describe an unverifiable and unfalsifiable narrative explanation.

13. Discuss ethical considerations in research into genetic influences on behaviour

Ethical consideration	Explanation
Confidentiality, privacy and security	Given the familial nature of genetic research, confidentiality, privacy and security are important considerations in ethical review of a genetic study. Genetics research can sometimes, either directly or by implication, reveal private information to one individual about other members of their family. It might reveal information about health status, or even about mis-attributed parentage, either through discussion of the result of a genetic test or in the process of collecting information for the construction of a family pedigree. A research subject may read or deduce information provided by other family members. Such information may be disclosed by accident through questions asked by a researcher about the family history. Accidental disclosure of such information can have consequences for the broader family and for one person's relationships with other family members. It may be revealed later by one family member to another during a family conflict, or may itself become the subject of a dispute.
Potential psychological harm from genetic testing	Development of a perception that a person is 'ill' • Low self-esteem on the part of the person tested • Serious psychological maladjustment, even perhaps depression and suicide • Parental guilt • Social discrimination, including future employment and insurance discrimination • May remove child's autonomy to make decisions as an adult • Changes in family perceptions and expectations for child • Identification of other family members at risk who wish not to know
Accuracy of results	Ethical concerns may arise over the accuracy of tests. Preliminary findings may later turn out to be false.

M Parker, R Williamson and J Savulescu (2003) Ethical issues in Genetic Research
Available at *http://www.uq.edu.au/oppe/PDFS/IEC_Manual.pdf*

the *cognitive* level of analysis

1.Outline principles of the Cognitive level of analysis
2.Explain how these principles may be demonstrated in research

1. Humans are information processors

- Cognition refers to the mental tasks or thinking involved in human behavior. Thinking may involve memory, attention, perception, language and decision making at any one time.
- Cognitive psychologist see these cognitions are active systems; In between taking in and responding to information a number of processes are at work.
- Information can be transformed, reduced, elaborated, filtered, manipulated, selected, organized, stored and retrieved
- Therefore the human mind is seen as an active system processing information, and cognitive psychologists aims to study these processes.
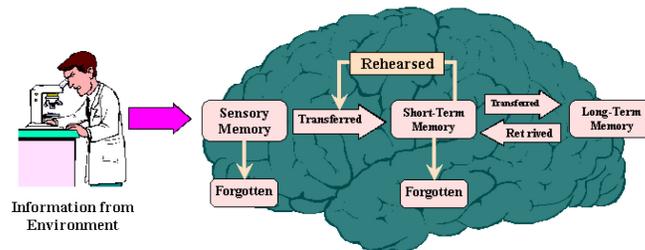
- Central to this information processing approach is the computer metaphor.
- One of the difficulties facing cognitive psychologists is that they were trying to study processes that are not directly observable.
- Consequently the computer revolution of the 1950 provided the terminology and metaphor they needed.
- People, like computers, acquire information from the environment (input). Both people and computers store information and retrieve it when applicable to current tasks; both are limited in the amount of information they can process at a given time; both transform information to produce new information; both return information to the environment (output).
- This information processing approach was adopted by Atkinson and Shiffrin in their Multi-store Model of memory (1968). This model sees memory as an active process. Information flows in through the sensory stage (input). It then flows to the short-term memory before it is transferred to long term memory where it can be stored and later retrieved.
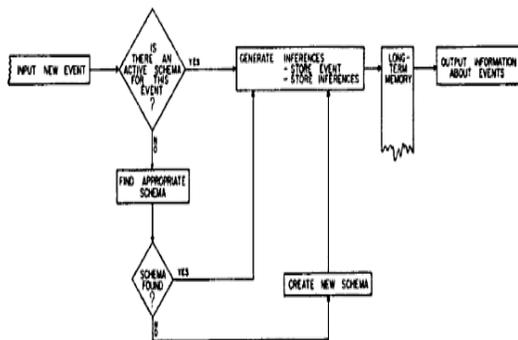
FIG. 5.2. Schematic information processing. From: Hastie, R. (1981).

A further example of information processing is the organization of information into schemas in the LTM. *Schemas* are mental models of the world.

Information in LTM is stored in interrelated networks of these schemas and these schemas can affect retrieval.

Thus, when to-be-remembered information is consistent with prior, existing information (such as schemas), retrieval will be enhanced. If to-be-remembered material doesn't fit with existing

schema, then those schemas may actually inhibit or distort retrieval

2 . Mental processes can be scientifically investigated through lab experiments

- Cognitive processes are difficult to study. They often occur rapidly, and inside the mind so they cannot be observed directly. It is only the responses that participants make when given some cognitive task to perform that can tell us about cognitive processes. These tasks usually take place under tightly controlled lab experiments where the main aim is to isolate a particular component of the cognitive process for the study.
- One of the earliest and most famous experiments into cognitive processes is the Stroop Effect. The stroop effect is a phenomena involved in attentional processes. Although we will actually focus on the process of memory this is a good study to look at. People are often introduced to the Stroop Effect in beginning psychology classes as they learn about how their brains process information. It demonstrates the effects of interference, processing speed (reaction time) and automaticity in divided attention.

The effect is named after John Ridley Stroop who first published the effect in English in 1935. He first compared the time it took to read color names printed in incongruent ink colors to a base line reading of color words. For the second part of his study, Stroop compared the time it took to name the ink color when congruent with the color word (e.g., blue printed in blue ink) to the time it took to name the ink color.

- This is a classic laboratory experiment that involves the manipulation of an independent variable (colour or name of word) to see what effect it has on the dependent variable (reaction time). It attempts to control the influence of all other extraneous variables – such as other cognitive processes or skills. It also allows us to establish a cause and effect relationship between task and mental process.

- A further example of the laboratory experiment was conducted by Ebbinghaus (1885). His experiment intended to show that pure memory could be studied scientifically under carefully controlled conditions. The aim of the study was to study forgetting, i.e. how quickly a person forgets what has been learned 100%. He used himself in most of the studies , i.e. the design was N=1 and he tested his memory using nonsense syllables. He manipulated the independent variable of 'time delay before recall' to find the effect on the dependent variable of 'the amount of information retained' thus being able eventually to draw the famous 'forgetting curve'. In order to test pure memory he used nonsense syllables for control for the effect of memory based on meaning.

3. Social and cultural factors influence our cognitive processes

- Although cognitive tasks such as memory and attention are universal, there are cross cultural variations in processing mechanisms. Bartlett's study demonstrates how memory can be distorted by cultural schemas.

- Schemas are representations of knowledge based on experience. In his study in which British participants were asked to recall a native American folktale. He found that the story of 'The War of the Ghosts' was difficult for Western people to reproduce exactly because of its cultural content which was unfamiliar to them so in fact they encoded the meaning of the story adapted to their existing cultural schemas.
- As a result Bartlett concluded that interpretation plays a large role in remembering events or stories. We reconstruct the past and try to make it fit into our schemata, the more difficult this is to do, the more likely it is that elements are forgotten or distorted so that it fits and remembering is integrally related to the social and cultural context in which it is practiced.

Cole and Scribner (1974) studied memory skills in both American and Liberian children. They argued that cognitive *processes* are universal but not cognitive *skills.* Cognitive skills are dependent on the environment – education, social interaction, culture and technologies make up the environment

They observed the effects formal schooling / education (culture) had on memory They compared recall of a series of words in the US and amongst the Kpelle people using word lists that were culturally specific.

- They found that in general educated Kpelle children performed better in the recall of list than non-educated Kpelle children and that overall American children performed better than Kpelle children.

- Although this could be interpreted as memory skills being better amongst Americans children than Kpelle (African) children such an interpretation would overlook the influence of culture. Western schooling emphasizes certain cognitive strategies such as clustering / categorising. It is unlikely such parallels exist in traditional societies like the Kpelle People learn to remember in ways that are relevant for their everyday lives, and these do not always mirror the activities that cognitive psychologists use to investigate mental processes

3.Discuss how and why particular research methods are used at the cognitive level of analysis

| Typical research method	Explanation / example	Evaluation
Lab experiments	One of the most scientific ways to study mental processes is through lab experiments because the high degrees of control allow researchers to isolate a particular component of the cognitive process for study (IV) to test its effect on the DV. eg. Craik & Tulving's (1975) Levels of processing study testing the effects of visual, phonetic and semantic (IV) processing on memory recall (DV) .	Weakness of lab experiments is that high levels of controls produce artificiality. Aspects of lab experiments which compromise ecological validity are the types of material used, the task undertaken and the location eg. recalling word lists and viewing clips of car crashes are artificial
Case studies of patients with brain-damage	Case studies allow researchers to take advantage of naturally-occurring biological events (eg. brain damage) For example the case of Tan, who was unable to produce language (Broca's aphasia). The autopsy showed that the damage was localized to a part of the brain now known as Broca'a area. Also the case of H.M (Corkin) who suffered from anterograde amnesia after surgery for epilepsy which removed part of his hippocampus. MRI scans undertaken in 1996 showed the extent of the damage to the hippocampus and ultimately its role in the formation of long-term memories.	Depth of information obtained and possible uniqueness of case may lead to a threat to anonymity eg. Clive Wearing's (Baddeley, 1990) case was publicized in a book. The damage often involves more than one area, so we cannot really tell which element of damage has what effect. H.M suffered from and had treatment for epilepsy beforehand. This may have affected parts of the brain. The uniqueness of the cases reduce generalizability
Brain imaging techniques	Neuroscientists can now study which brain areas are active when people attempt certain cognitive tasks through the use of CAT and MRI scans eg. Goshe et al (2000) used MRI scans to study patients with cognitive impairment. The researchers (who did not have access to the patients' files) were 100% accurate when determining which patients had been diagnosed with Alzheimer's disease and which had no or few symptoms.	Brain areas activate (or are inactive) for various reasons and so we can't assume direct links between specific tasks or disorders and specific parts of the brain.

4.Discuss ethical considerations related to research studies at the cognitive level of analysis

NB: This includes suggestions for all 3 levels of analysis. Add your own examples to the table.

Ethical guideline(based on BPS)	explanation	comment	example
Consent	*Participants must be informed* about the nature of the study and agree to participate (ie. able to give informed consent)	Informed consent is very difficult to achieve without jeopardizing the real objective of the study.	Milgram (1963) participants had volunteered to take part in an experiment on learning, not obedience Bandura (1963) - Children not able to give own consent
Deception	Information must not be withheld from participants, nor should they be mislead.	Studies involving deception are unethical but sometimes necessary.	Milgram (1963) participants were led to believe they were giving real electric shocks. Schacter & Singer – participants believed they were taking a vitamin injection
Right to withdraw	Participants should have the right to withdraw at any time, regardless of whether or not they were paid for their participation.	Some participants feel obliged to continue, although they have been given the right to withdraw.	MIlgram (1963) pushed the line with trying to coerce participants to continue the shocks. Zimbardo (Stanford Prison experiment) made it hard for prisoners to leave.
Debriefing	Following an investigation, participants should be fully informed about the nature and purpose of the of the research	A useful way of making sure participant is not affected by the study. Can help in cases of deception and when it was difficult to obtain informed consent.	Milgram fully debriefed his participants.
Protection of participants	Researchers have responsibility for protecting participants from physical or mental harm, including undue stress.	Not always guaranteed, though debriefing does help. Is the study justified if the participants are harmed in some way?	Milgram – induced stress and anxiety Zimbardo – psychological stress Bandura – encouraging aggression in young children Speisman – possible psychological distress Schacter & Singer – possible harm from injection and stress at 'angry' situation Money – Case of Brenda/Bruce (later David) Reimer – but through incredible and long term stress and deception
Confidentiality	Participants have the right to confidentiality.	Usually quite easy to maintain confidentiality.	Pseudonym was used in the case of H.M but not Clive Wearing David Reimer was the subject of a documentary

5. Evaluate schema theory with reference to research studies.

What is a schema ?
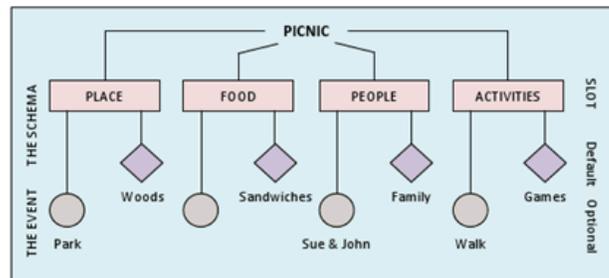
- Schemas are cognitive structured (mental templates or frames) that represent a person's knowledge about objects, people or situations. The concept of schema was first used by Jean Piaget in 1926 and later developed by Bartlett (1932). Schemas are used to organize our knowledge, to assist recall, to guide our behavior, to predict likely happenings, and to help us make sense of current experiences. They simplify reality.
- They come from prior experience and knowledge. Schemas are assumed to operate in a "top-down" way to help us interpret the "bottom-up" flood of information reaching our senses. They allows us to take short-cuts in interpreting vast amounts of information.

Schema Theory

- As active processors of information, humans intergrate new information with existing, stored information.
- Schema theory therefore states that what we already know will influence the outcome of information processing. In other words new information is processed in the light of existing schema. Schemas then can affect our cognitive processes.

For example if you already have an expectation about a person or an event, your memory of that person or event will be shaped based on your preexisting schema. For example, if you have already the stored schema that urban teenage males are aggressive and you meet a pleasant urban male teen,your memory of him may be affected. If you were surprised with his politeness, you may remember him as even more polite than he is. Or, you may not even notice how polite he was because you were expecting him to be rude, and so you remember him as the typical urban teen you had previously imagined in your mind.

Evaluation of Schema theory

- Support for the influence of schemas on cognitive processes is widespread. Bartlett (1932) demonstrated how schema, specifically cultural schema, can influence memory in his classic study. He gave participants a complex and unusual story called *'The War of the Ghosts'* which contained unfamiliar supernatural concepts and an odd, causal structure to Western participants.

- He asked them to recall it six or seven times over various retention intervals. He found that recalled stories were distorted and altered in various ways making it more conventional and acceptable to their own cultural perspective. He used the term rationalization to refer to this type of error - rationalizing it according to what fitted with their existing cultural schemas - for example canoe was often substituted for 'boat'.

- HOWEVER, the ecological validity of the War of the Ghosts lab study has been questioned. Whilst Bartlett rejected the artificiality of traditional stimulus such as nonsense syllables (Ebbinghaus) and word lists to test memory, his use of a native American folk tale was " about as similar to normal prose as nonsense syllables are to words ".

- Wynn & Logie (1998) did a similar study with students using " real - life" events experienced during their first week at university at various intervals of time ranging from 2 weeks to six months. They found that the initial accuracy of recall was sustained throughout the time period, suggesting that schema-induced memory distortions may be less common in naturalistic conditions than in the laboratory.

- Furthermore Bartlett' study wasn't a very well controlled study. Bartlett did not give very specific instructions to his participants (Barlett, 1932 " I thought it best, for the purposes of these experiments, to try to influence the subject's procedure as little as possible".) As a result, some distortions observed by Bartlett may have been due to conscious guessing rather than schema-influenced memory.

- Gauld and Stephen (1967) found that the instructions stressing the need for accurate recall eliminated almost half the errors usually obtained.

- Further support for the influence of schemas on memory at encoding point was reported by Anderson and Pichert (1978). Participants read a story from the perspective of either a burgular or potential home buyer. After they had recalled as much as they could of the story from the perspective they had been given, they shifted to the alternative perspective and recalled the story again. On the second recall participants recalled more information that was important only to the second perspective or schema than they had done on the first recall.

- This experiment was also conducted in a lab, so ecological validity may also be an issue here. However the strength of the experiment was its variable control, which allowed researchers to establish a cause-and-effect relationship how schemas affect memory processes.

- Finally, one of the main problems of the schema theory is that it is often very difficult to define what a schema is. Rumelhart (1980) identified four different analogies of what a schema is but was unable to actually define a schema.

- Cohen (1993) points out that "the whole idea of a schema is too vague to be useful' and argues that schema theory provides no explanation of how schemas work

- *Nevertheless,* there is enough research to suggest schemas do affect memory processes knowledge, both in *a* positive and negative sense. They do simplify reality, and help us to make sense of current experiences. Schemas are useful concepts in helping us understand how we organize our knowledge.

6.Evaluate two models of memory

1.   Multistore model of memory

One of the best-known models of how memory works is that proposed by Atkinson and Shiffrin (1968). They described the memory system in terms of a multi-store model. They proposed that that memory is divided into three kinds of stores - sensory memory; short-term memory; and long-term memory.

What do we know about these memory stores ?

Sensory memory

Information in sensory memory exists for a very brief period of time. Unless the information is attended to, it is lost very quickly to decay. The main evidence for sensory memory was provided by Sperling (1960). Subjects were shown a card containing three rows of letters for a period of 50ms. Subjects could report four or five letters, but claimed to see many more, leading Sperling to conclude that subjects could not name the remaining letters because information about them had decayed (Sperling estimated that information in the sensory memory lasts for 500mss). While there is general agreement on the existence of sensory memory, its importance to cognition is relatively small

Short-term memory (STM)

Information that has been attended to in sensory memory is passed to short-term memory. The STM is a system for storing information for brief periods of time. Atkinson & Shiffrin see STM simply as a temporary storage depot for incoming information. Short-term memory is a store of limited duration and capacity. Information lasts for a slightly longer time than in sensory memory

There are essentially three important areas to cover when looking at STM – Encoding, Capacity and duration. We shall focus on the latter two.

Capacity

One way of assessing STM capacity is by measuring immediate digit span. This technique usually involves reading out a list of random digits and requiring the participant to repeat them back in the correct order. The sequences usually begin with about three digits and steadily increase in length until it becomes impossible to recall them in serial order. Over a number of trials, the sequence length at which the participant is correct 50 per cent of the time is defined as their digit span. Most people have a digit span of 'seven, plus or minus two' (Miller 1956).

however…….

Research has shown that chunking in terms of meaning can increase our ability to hold information in the STM . According to Miller, chunking occurs when we combine individual letters or numbers into a larger meaningful unit, for example your bank pin number or a telephone number.

We are often unaware that we are doing this. If we actively chunk information the capacity of our STM can be increased.

Duration

STM has a brief duration. The first attempts to measure the duration of STM were made independently by Brown (1958) and Peterson and Peterson (1959).

They used a similar experimental method, which is now known as the Brown-Peterson technique. The technique involves presenting participants with consonant trigrams, which are sets of three unrelated consonants, e.g. CPW, NGV. Note that such a sequence should be well within the normal memory span.

Participants are then asked to count backwards in threes from a specified number in order to stop them thinking about the letters. After an interval ranging from between 3 and 18 seconds, the participants are asked to recall the original trigram. This procedure is then repeated several times. Typical results of Brown-Peterson experiments show rapid forgetting over a short interval and, after 18 seconds, the percentage of correctly recalled trigrams falls to 10 per cent. Such results also emphasise the fact that interference prevents rehearsal.

Long term memory (LTM) holds a vast quantity of information which can be stored for long periods of time. The information kept here is diverse and wide-ranging and includes all of our personal memories, our general knowledge and our beliefs about the world.

It also includes plans for the future and is the depository for all our knowledge about skills and expertise. LTM is not a passive store of information, but a dynamic system which constantly revises and modifies stored knowledge in the light of new information. LTM is a much larger, more complex memory system than STM and it is not as easy to characterize in terms of factors like capacity, duration and simple encoding: It is not possible to quantify the exact capacity of LTM, but most psychologists would agree that there is no upper limit - we are always capable of more learning. Similarly, the duration of the memory trace in LTM is considerably longer than in STM and can last anything from a few minutes to a lifetime.

Evaluation

Primacy-Recency Effect – Glanzer & Cunitz (1966) suggested that early words and final words in a list are recalled well, whereas middle words are likely to be forgotten. Their serial curve experiment demonstrates this effect. They concluded that early words had moved into the LTM and that later information was still in the STM, thus providing support for separate, distinct systems.

Case studies of brain – damaged patients provide evidence for separate stores eg. Clive Wearing and H.M who can hold conversations but cannot form new memories (see below)

However, The multi-store model has been described as too simplistic, and the LTM and STM are more complex, and less unitary than the model suggests. The Levels of Processing model suggests memory is not made of stores, but is processed at a certain level.

Case studies of brain – damaged patients

1. The case of Clive Wearing

Clive Wearing was a highly respected musician who, in his 40's, contracted a viral infection – *encephalitus* in 1985. Tragically this disease left him with extensive brain damage (parts of his temporal lobes – important in forming new memories – are damaged). He is still able to talk, read and write and retained remarkably intact musical skills. His memory for past events is hazy, but he still has long-term memories formed before the onset of the disease. In all other respects, however his memory is dramatically impaired. He lives totally within the most recent one or two minutes of his life. He remembers what just happened but forgets everything else. Clive is unable to form new long-term memories. Because of his inability to form new memories he constantly feels he has just become conscious for the first time.

Clive is convinced he has just woken up and he keeps a diary in which he records hs obsessive thoughts " I have just woken up" "I am conscious for the first time"……It is now 20 years since the onset of the illness

which has left Clive trapped in an eternal present. He can't enjoy books or TV as he is unable to follow the thread, he cant read newspapers as he has no context in which to embed the new stories. He can't go out alone because he immediately becomes lost. Clive describes his situation as "hell on earth"

2. The Case of H.M
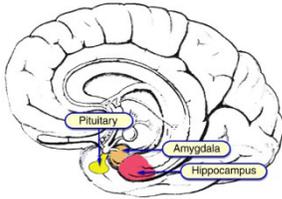
H.M was an active teenager from Conneticut, USA. However he suffered from epilepsy and had frequent fits to the point when in 1953 he was having up to 11 fits a week. The drugs available at the time couldn't control them. For a young person, this was devastating. Without any intervention, there was no chance that he would be able to apply for a job, let alone leave the house. It was then, that the idea of surgery was floated.

In 1953, aged 27-year-old he entered a hospital for surgery that would cure him of the devastating fits that resulted from his epilepsy. For H.M. he had the most common form of intractable psychomotor epilepsy, that which is localised in the temporal lobes. So, to stop the fits from continuing, the only option was remove parts of these lobes. An apple-sized chunk of his temporal lobes on both sides of his brain were removed and the fits never returned. However, something else, something quite extraordinary, yet equally saddening, happened. Positioned just underlying the temporal lobes is the *hippocampus* It was never really known what it was for, until this point. When his surgeon removed parts of H.M's temporal lobes, he would have had no option but to disturb the hippocampus too. The effect of this on H.M was marked.

From 1953 onwards, he couldn't remember anything you told him for any reasonable length of time. Every time a doctor who was assigned to his case came to chat to him, they had to reintroduce themselves every time they met because he couldn't remember who they were. If you talked to him, and a loud noise, say a slamming door, distracted him for a moment, he would have no recollection of what you said to him, moments before. He could no longer form short term memories. He was able to talk normally and to recall accurately events and people from his life before surgery, and his immediate digit span was within normal limits. He was, however, unable to retain any new information and could not lay down new memories in LTM. When told of the death of his favourite uncle, he reacted with considerable distress. Later, he frequently asked about his uncle and, on each occasion, reacted again with the level of grief appropriate to hearing the news for the first time.

2. Levels of processing (Craik & Lockhart 1972)

Craik and Lockhart (1972) rejected the idea of separate memory structures put forward by the Multi-Store model and criticized its emphasis on the structure rather than the process of memory. Instead they argued that long term memory depends not on rehearsal (repetition) but on how well we learn something, or more specifically, what type of processing is being used at the time. The better something is processed, the better it is stored and recalled. Memory is a by-product of processing. They proposed 3 different levels, or depths of processing – shallow, intermediate and deep.

Craik and Lockhart argued that there were *two* kinds of rehearsal 1. Maintenance rehearsal which simply involves repeating the information in your mind, is regarded as shallow processing and 2. Elaborative rehearsal which involves a deeper, more meaningful analysis of the stimulus.

Evaluation

Craik & Tulving's (1975) depth of processing study also support the model (see over page). It easy to replicate Craik & Tulving's study and many subsequent studies support their findings.

Findings of Hyde and Jenkins (1973) and Elias & Perfetti (1974) support the LOP model

The LOP model fits in well with cognitive psychology's information processing assumption. The IP model helps us understand the processes that take place at the time of remembering

It is mainly descriptive rather than explanatory. In particular, it fails to explain why deeper processing leads to better recall.

It is difficult to measure depth independently. What exactly is meant by 'deep' ? The concept of levels is circular in that we are saying;

depth = no. of words recalled

no. of words recalled = depth

7. Explain how biological factors may influence one cognitive process (memory)

The role of the hippocampus

The biology of memory has long been the subject of research. Karl Lashley (1890 – 1958) spent much of his career trying to track down the elusive *engram* – a term he used to describe a physical trace or etching in the brain where he believed a memory is stored. He taught rats to find their way through a maze, then made incisions in their cortices to try and erase the memory trace. However he failed to erase the rats' memories of the route through the maze, and concluded that memory could not be localized to a single area in the brain.

More recent research suggests that memory that memory is not in fact etched in brain cells but are stored in the intricate circuitry of neurons in the brain (known as neural networks) , new memories seem to cause new neurons (Kandel, 2000)

It is also now known that the *hippocampus* is involved in the complex processes of forming, sorting, and storing memories. Damaged neurons in the hippocampus can severely affect memory. We know this through lesioning studies. Lesioning involves cutting away brain tissue and seeing the effects on behavior as a consequence. Obviously it would be unethical to do this on humans so researchers have two options a) to study patients with brain damage b) to deliberately cut tissue in animals to conduct experiments.
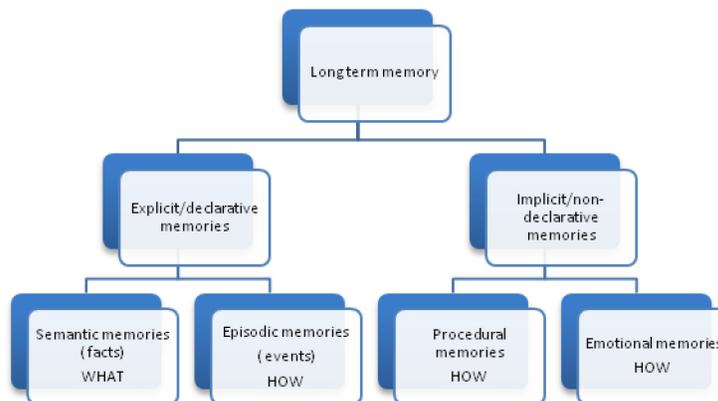
Case studies of brain – damaged patients

H.M suffered debilitating epileptic seizures and in 1953, aged 27, he underwent an experimental surgical procedure called a bilateral medial temporal lobe resection which involved the removal of parts of the medial temporal lobe including two-thirds of his hippocampus. The unexpected outcome of the surgery was severe anterograde and partial retrograde amnesia. H.M. was unable to form new episodic memories after his surgery and could not remember any events that occurred after his surgery, but retained memories for things that happened earlier, such as his childhood. This case produced such enormous interest that H.M. reportedly became the most intensively studied medical subject in history. Corkin (2002) showed that HM could learn new skills such as mirror drawing and mirror reading, although he did not remember actually performing these tasks. This showed that HM had intact procedural memory even though he had no declarative memory of ever doing the task.

A similar case study is that of Clive Wearing, who was an accomplished musician who suffered anterograde and retrograde amnesia as a result of a brain infection. Like H.M, he can still speak and walk, as well as read music, play the organ and conduct. In fact, his musical ability is remarkably well preserved. In all other

respects, however his memory is dramatically impaired. He lives totally within the most recent one or two minutes of his life. He remembers what just happened but forgets everything else. Clive is unable to form new long-term memories. Because of his inability to form new memories he constantly feels he has just become conscious for the first time

MRI scans show that patients such as H.M and Clive Wearing both have damage to the hippocampus. H.M had damage to the hippocampus and the amygdala. Clive Wearing has damage to the hippocampus and some of the frontal lobes.

Further evidence for this idea come from animal studies. Studies by Zola-Morgan et al (2000) on monkeys with lesions to the hippocampus have found that they fail tasks such as the delayed-nonmatching-to-sample (DNMS). In the DNMS task an animal sees an object/food (the sample) and then, after a delay, gets a choice between two objects, from which it must choose the one that is different from the sample. The animal is trained to do this, being rewarded each time (with food) that it gets the new object. However the delay time is increased, and monkeys with impaired hippocampus show increasing errors with increasing delays, thereby showing difficulties forming declarative/ explicit memories, possibly episodic memories.

(a) Sample: Food Found Under an Object

(b) Test: Choose the Object That Is New (Nonmatching)

(c) Food Found Under the Nonmatching Object
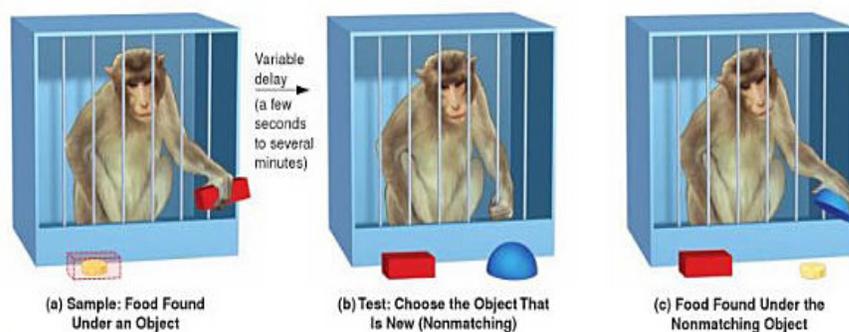
■ **FIGURE 12.16**
The Delayed Nonmatching to Sample (DNMS) Task To find food successfully, monkeys must select the nonmatching (new) stimulus following a delay. Monkeys with medial temporal lobe damage appear to have difficulty forming new memories and subsequently perform poorly on the task.

Evaluation

Based on animal studies, MRI scans and tasks brain-damaged patients can and cannot complete it there is sufficient evidence to conclude the hippocampus is critical for declarative/explicit memory.

Such theories are largely dependent on case-studies. Case-studies provides in-depth information of real people with brain damage, thus increasing its ecological validity

However researchers have no control over the subjects of brain-damaged studies. It may be the case that individuals who suffer brain damage may not be 'normal' in other ways. Certainly this may be the case for H.M who had a lifetime history of epilepsy and this may have affected his cognition in other ways. Furthermore the damage often involves more than one area, so we cannot really tell which element of damage has what effect.

Although H.M's identity remained confidential (until his recent death in 2008) there was a clear breach of confidentiality in the case of Clive Wearing

Animal experiments are widely used in brain research as they allow psychologists to use invasive techniques such as lesioning (scarring) to study behavioural changes. However this raises huge ethical issues about the use of animals in research.

8.Discuss how social or cultural factors affect one cognitive process

The effect of schooling on memory

Cole and Scribner (1974) argue that cognitive *abilities* are universal but not cognitive *skills.* Cognitive skills are dependent on the environment – education, social interaction, culture and technologies make up the environment. For example, Cole and his colleagues gave a non-literate Kpelle rice farmer in Liberia this syllogism (problem);

All Kpelle men are rice farmers.
Mr. Smith is not a rice farmer.
Is he a Kpelle man?

Whilst westerners are likely to answer no, the farmer replied: "If I know him in person, I can answer that question, but since I do not know him in person, I cannot answer that question". This is a typical response among non-schooled people. The reasoning is based on knowledge and experience rather than logical reasoning, Scribner argued (1974) that it is the effect of schooling that enables the development of logical thinking in children.

Table 16-2 Stimuli Used by Cole et al. (1971)

Cole and Scribner (1974) studied memory skills in both American and Liberian Kpelle children. They observed the effects formal schooling / education (culture) had on memory. They compared recall of a series of words in the US and amongst the Kpelle people using word lists that were culturally specific (shown opposite). The Kpelle people were aged 6 – 14. Half the children were in school whilst the other half were not.

Cole & Scribner asked the Kpelle children from different age groups to recall as many items as possible from four categories (shown) to recall as many items as possible.

They found that schooled Kpelle children performed better in the recall of word than non-schooled Kpelle children They also found that overall American children performed better than Kpelle children.

Although this could be interpreted as memory skills being better amongst Americans children than Kpelle (African) children such an interpretation would overlook the influence of culture. Western schooling emphasizes certain cognitive strategies such as *clustering / categorising*. Schooling presents children with a number of specialized organizing tasks, such as organizing large amounts of information in memory. It is unlikely such parallels exist in traditional societies like the Kpelle.

HOWEVER Cole et al followed up this work by testing a different hypothesis – memory performance was not based on skills/strategy but on recall tasks more relevant to those the Kpelle ordinarily encounter. They used the narrative method so that the objects were presented in a meaningful way as part of a story.

The narrative (story) centered on a four suitors (a man trying to date/marry a woman) who present certain items as a dowry (bridewealth) to the town's chief to try to win the right to marry his daughter. In the first story the first suitor offers all the clothing, the second, all of the food, the third all of the tools and the fourth, all of the utensils. In a second story the man attempts to kidnap the girl, who drops the items along the path as she goes. She drops them in an order that bears no relation to category membership but makes sense in the sequence of events.

The framework of the story seemed to greatly aid recall. The non-schooled children recalled the objects easily and actually chunked them according to the roles they played in the story. The conclusion is that people learn to remember in ways that are relevant for their everyday lives, and these do not always mirror the activities that cognitive psychologists use to investigate mental processes.

Evaluation

Such studies can be supported by other cross-cultural studies such as Rogoff & Waldell (1982) with Mayan Children in Guatemala. When Mayan children were presented with a culturally appropriate free-recall task, their performance was poorer than their American counterparts. However, when Rogoff and Waddell (1982) gave them a memory task that was meaningful in local terms performance on a memory task increased dramatically. The researchers constructed a 3D diorama of a Mayan village located near a mountain and a lake, similar to the locale in which the children lived. Each child watched as a local experimenter selected 20 miniature objects and placed them in the diorama. The objects included real-life objects such as cars, animals, people, and furniture. Then the 20 objects were removed and after a few minutes, the children were asked to reconstruct the full scene they had been shown. Under these conditions, the memory performance of the Mayan children was slightly higher than that of their United States counterparts.

The implication of these memory studies is that although cognitive processes such as memory are universal, how memory is used is not universal but dependent on cultural practices such as formal schooling.

9. To what extent is one cognitive process (memory) reliable ?

Bartlett's ideas on reconstructive memory have been developed and extended by Elizabeth Loftus and have influenced her research into eyewitness testimony and false memory syndrome.

Eyewitness testimony is an important area of research in cognitive psychology and human memory. Eyewitness testimony is a legal term which refers to an account given by people of an event they have witnessed eg. a robbery or something other crime. It is often a vital factor taken into account by juries in deciding whether defendants are guilty or not guilty. It is important, therefore, that we have some idea of how reliable these testimonies really are.

However Loftus has long argued that eyewitness testimony can be highly unreliable because our memories can reconstruct events. Bartlett 's theory of Reconstructive Memory is crucial to an understanding of the reliability of eyewitness testimony as he suggested that recall is subject to personal interpretation dependent on our learnt or cultural schemas - the way we make sense of our world. Schemas are capable of distorting unfamiliar or unconsciously 'unacceptable' information in order to 'fit in' with our existing knowledge or schemas. This can, therefore, result in unreliable eyewitness testimony.

Bartlett tested this theory using a variety of stories to illustrate that memory is an active process and subject to individual interpretation or construction. In his famous study 'War of the Ghosts', Bartlett (1932) demonstrated ……CHANGE THIS

In relation to eyewitness testimony (EWT) Loftus believed that the reconstruction of memories was one of the reasons why EWT was often inaccurate. One way that memory could reconstruct (or distort) information is through misleading questions. A (mis) leading question is one that is phrased in such a way that it suggests a particular answer to the witness. After witnessing a crime or event a witness will be questioned by the police, and by lawyers who may intentionally or unintentionally ask a leading question such as " how dark was it ?" as opposed to " was it dark?" ….. Loftus has argued that the former question could activate schema which could influence accuracy of recall. The question activates the belief *it was dark* when it actually it may have only been 6pm and not dark at all.

Automobile Reconstruction (Loftus & Palmer, 1974)

Loftus and her colleagues showed how quite subtle changes of wording during questioning may distort recall (Loftus & Palmer, 1974 and Loftus & Zani, 1975) in a classic experiment. The lab experiment involved asking participants to complete a questionnaire after witnessing videos of staged and real car crashes. The first part of the experiment asked the participant to estimate the speed of the cars, and changed the verb in the question to see if it influenced memory. The second part of the study asked the participants if they saw broken glass. In both cases more dramatic verbs led to memories of a more serious accident, and therefore higher estimated speeds / more likelihood of remembering broken glass. The researchers concluded that memory of an event is not reliable, as it can be distorted. This is because a memory is created from what actually happened plus information that is added to it afterwards.

Criticisms of this type of research, however, suggest that it lacks ecological validity (Yuille & Cutshall, 1986) as it is laboratory based and does not have the emotional impact of witnessing an incident.

10.Discuss the use of technology in investigating one cognitive process
- Alzheimer's disease and memory loss

- Alzheimer's disease is a degenerative brain disorder that results in memory loss, impaired thinking, difficulty finding the right word when speaking, and personality changes.
- Its course is marked by a continual loss of neurons (nerve cells) in areas of the brain that are crucial to memory and other mental functions.
- After the symptoms first appear, people live anywhere from 2–20 years in an increasingly dependent state that exacts a staggering emotional, physical, and economic toll on families.

No blood test, brain scan, or physical exam can definitively diagnose Alzheimer's disease. And because so many conditions can produce symptoms resembling those of early Alzheimer's, reaching the correct diagnosis is complicated. Nevertheless the following tools are available to doctors;

- A **complete medical history** includes information about the person's general health, past medical problems, and any difficulties the person has carrying out daily activities.
- **Medical tests** - such as tests of blood, urine, or spinal fluid - help the doctor find other possible diseases causing the symptoms.
- **Neuropsychological tests** measure memory, problem solving, attention, counting, and language.
- **Brain scans** allow the doctor to look at a picture of the brain to see if anything does not look normal. Brain scans such a Magnetic Resonance Imaging (MRI) and Positron Emission Tomography (PET) can be used to confirm diagnosis, but in the very early stages they often fail to show very much change. Later on, there will be a significant and clear loss of brain tissue and an enlargement of the fluid-filled spaces (ventricles) in the brain, but by then the diagnosis is probably fairly certain. Scans are most likely to be performed in early-onset cases or to eliminate other causes, for example, if a brain tumour is suspected.

Unfortunately, the definitive signs of Alzheimer's, namely the presence of amyloid plaques and neurofibrillary tangles, can only be seen after death, when brain tissue can be examined during biopsy.

Positron Emission Tomography (PET)

Positron Emission Tomography (PET) scans detect special radioactively labeled tracers which are injected into a patient's body before the imaging procedure starts. PET scans can be used to accurately monitor brain activity while a patient's memory and cognition are being tested.

BRAIN SCANS HELP IDENTIFY ALZHEIMER'S
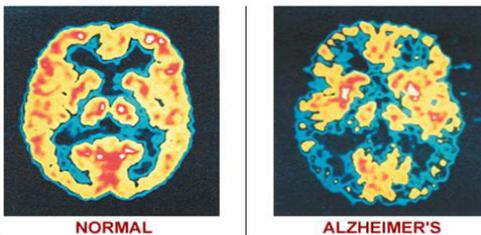
NORMAL   ALZHEIMER'S

Brain scans done with Positron Emission Tomography (PET) show how Alzheimer's affects brain activity. The left image shows a normal brain, while the right is from a person with Alzheimer's. The blue and black areas in the right image indicate reduced brain activity resulting from the disease.
Images courtesy of Alzheimer's Disease Education and Referral Center, National Institute on Aging

PET scans can determine brain activity and function by measuring differences in blood flow and the usage of glucose (sugar), both of which increase when an area of the brain is active.

PET scans provide information about brain function and activity as opposed to brain structure, and are more typically used in research

- The scans are made by injecting the patient with a form of sugar that has been altered to carry a weak, short-lived radioactive element. The sugar hits the bloodstream and flows to the brain, which needs huge amounts of energy to keep all its nerve cells running.
- The most active areas of the brain need the most sugar -- while damaged and less active areas need much less. By detecting the weak radiation signal from the sugar molecules as they travel throughout

the brain, PET scanners can make a picture of brain cell activity. The resulting scans show the level of activity using a scale of colors; red and orange for high activity, and blue and purple for low.

- Researchers from the New York University School of Medicine have developed a brain-scan-based computer programme that quickly and accurately measures metabolic activity in the hippocampus – an important brain structure in memory processes. Using PET scans and the computer programme the researchers showed that in the early stages of Alzheimer's disease there is a reduction in brain metabolism in the hippocampus.
- In a longitudinal study they followed a sample of 53 normal and healthy participants – some for 9 years and others for as long as 24 years. They found that individuals who showed early signs of reduced metabolism in the hippocampus were associated with later development of Alzheimer's disease.

Magnetic Resonance Imaging (MRI)
- MRI scans use magnetic and radio waves, instead of X-rays, to provide very clear and detailed static three dimensional images of brain structure
- MRI scans. Currently MRI is used to mainly rule out other possible causes for cognitive impairment, such as a brain tumor or blood clot.
- However use of MRI scans is turning to images of shrinkage in the hippocampus. Cells in the brain's hippocampus, a region involved in memory and learning, progressively deteriorate and die in Alzheimer's disease and MRI imaging can detect atrophy (shrinkage) of the hippocampus that occurs when substantial numbers of cells die.
- Research has found that shrinkage can be detected even before symptoms interfere with daily function.
- Goshe et al (2000) looked at MRI results for 119 patients with varying degrees of cognitive impairment. Some patients were normal, some had cognitive impairment at the time of the MRI, and others were already diagnosed with Alzheimer's disease. The researchers (who did not have access to the patients' files) were 100% accurate when determining which patients had been diagnosed with Alzheimer's disease and which had no symptoms. The study reported a 93% accuracy rate when researchers were asked to distinguish between patients with no symptoms and patients who had only mild cognitive impairment, but were not yet diagnosed with Alzheimer's disease.

(*Goshe K.M., Mortimer J.A., Smith C.D., Markesbery W.R. Snowdon D.A. "Hippocampal volume as an index of Alzheimer's neuropathology: findings from the Nun Study," *Neurology*, May 28, 2002, 58(**10**):1476-82.)

Functional MRI (FMRI) scans are similar to a typical MRI scan but instead of providing a static image of the brain, they can assess the brain activity and blood flow. FMRI scans are used mainly in a research setting and not typically used in a diagnosis of Alzheimer's disease.

11. To what extent do cognitive and biological factors interact in emotion ?

example exam approach: In this answer I will discuss the interaction of cognitive and biological factors with reference to three theories.

Psychologists have long debated the role physiological, cognitive and behavioural factors play in emotions. Originally believed to be a physiological experience, research now suggests that emotions are an interaction of both physiological and cognitive factors. Different theories debate the role and primacy of each.

Schacter (1964) Two – factory theory

Schacter (1964) was the first theorist to bring together the two elements of physiological arousal and cognition. It is sometimes known as the two-factor theory of emotion. For an emotion to be experienced, a physiological state of arousal is necessary AND situational factors will then determine how we interpret this arousal. In other words, an event causes physiological arousal first. You must then identify a reason for this arousal and then you are able to experience and label the emotion.   The strength of physiological arousal will determine the strength of emotion experienced, while the situation will determine the type of emotion. These two factors are independent of each other BUT both are necessary for the emotion to be experienced.

A classic study by Schacter & Singer (1962) supports these ideas. Their study tested the theory that an emotion is made up of cognitive appraisal (labelling the emotion) and physiological arousal (adrenaline and the physical changes it produces). They gave 3 groups of participants an adrenaline injection (epinephrine) and 1 group a placebo, and then put them into situations designed to create an emotional response of anger or happiness. Some participants were misled or given no information and the researchers predicted that they would blame their physical state on the situation, therefore reporting higher levels of emotion. Other participants were told the effects of the injection and so would not blame the situation as they already knew why they felt that way. The results were as predicted, indicating that if someone feels physiologically aroused and doesn't know why they will look at their situation in order to label their emotion.

Schacter & Singer concluded that a stimulus triggers a physiological response and at the same time the stimulus is interpreted in the brain taking into account previous experiences of similar situations. The brain produces the actual emotion that the person experiences, through cognitive factors, and the ANS produces the degree to which that emotion is felt. So emotion is an interaction of both cognitive and physiological factors

This was a well-controlled study with several conditions. However the sample was not representative (all male) and males may have different emotional reactions to females. It is ethically questionable to both inject participants with substances and it may be distressing to induce anger.

Lazarus (1982) Appraisal theory

Whilst there are some problems with Schacter's theory it has nonetheless been an important influence on theoretical accounts of emotion. Lazarus has built on the work of Schachter and also proposed a theory that demonstrates the interaction of cognitions and biology in understanding emotions. He has however, emphasised the role of cognitions or 'cognitive appraisals'. He argued that an emotion-provoking stimulus triggers a cognitive appraisal, which is followed by the emotion and the physiological arousal. He suggested we initially make a brief analysis of a situation in terms of whether or not it represents a threat (we appraise a situation). Cognitive appraisal of the situation determines the level of physiological arousal and the specific type of emotion to be experienced

His theory focuses on the appraisal of the situation and he identified three stages of appraisal

4. Primary appraisal (relevance) – in which we consider how the situation affects our personal well-being or how threatening the situation is.
5. Secondary appraisal (options) - we consider how we might cope with the situation
6. Reappraisal (ability to handle emotion) - Reappraisal refers to whether the emotion / situation is changeable or manageable

Speisman et al (1964)

A study that supports Lazarus theory is that conducted by Speisman. He showed college students a film called 'Sub-incision', a graphic film about an initiation ceremony involving unpleasant genital surgery.

The aim was see if the people's emotional reactions could be manipulated.   The experiment deliberately manipulated the participants appraisal of the situation and evaluated the effect of the type of appraisal on their emotional response.

One group saw the film with no sound. Another group heard a soundtrack with a "trauma" narrative emphasising the pain, danger, and primitiveness of the operation. A third group heard a "denial" narration that denied the pain and potential harm to the boys, describing them as willing participants in a joyful occasion who "look forward to the happy conclusion of the ceremony." The fourth group heard an anthropological interpretation of the ceremony. Physiological (heart rate and galvanic skin tests) and self-report measures of stress were taken. Those who heard the trauma narration reacted with more stress than the control group (no sound); those who heard the denial and scientific narrations reacted with less stress than the control group.

This was a well-controlled lab experiment, including scientific measures of emotional reactions – heart rate and galvanic skin tests. Such results seem to support Lazarus's theory that it is not the events themselves that elicit emotional stress but rather the individual's interpretation or appraisal of those events. However, as it was a lab experiment the videos were an artificial test of emotional reaction. It may also be unethical to expose participants to high levels of discomfort.
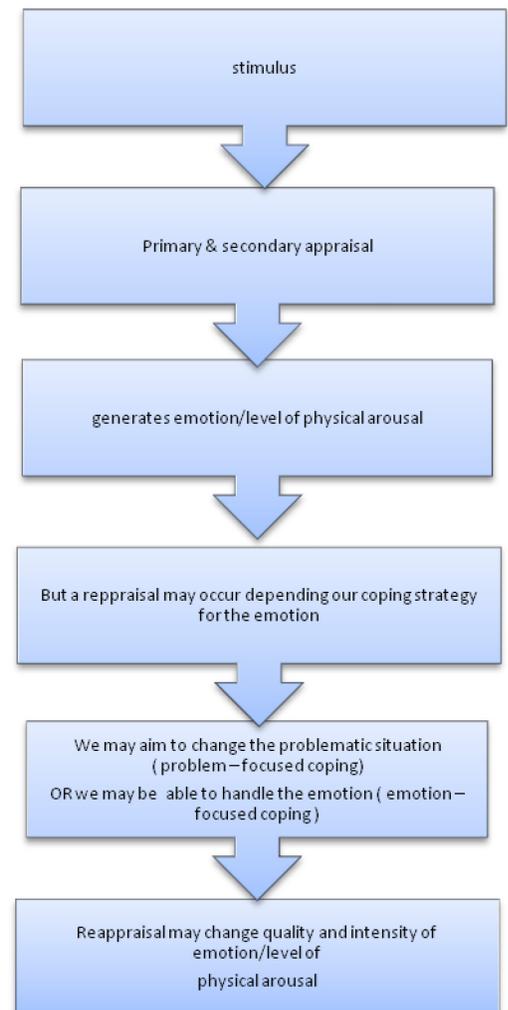
Le Doux (1996) Biological factors
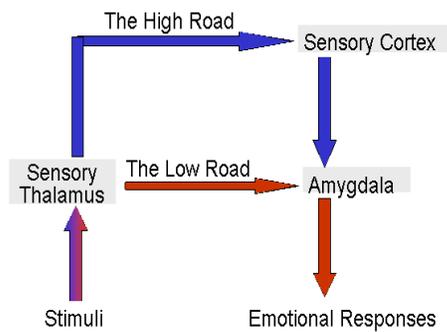
LeDoux: Tracing Emotional Pathways (NY Times Nov. 5, 1996)

Le Doux mapped out the biological circuitry of emotions through work on rats. In his experiments, rats are exposed to a tone and mild electric shock at the same time. Later, at the sound of the tone by itself, they freeze, as if frightened. They have been conditioned to fear the noise.

By using tracers, chemicals that stain neurons LeDoux found a direct pathway from the ear to a two-way station called the sensory thalamus that led directly to the amygdala, an almond-shaped structure in the forebrain.

So the emotional stimulus is first processed in the sensory thalamus which sends a signal to the amygdala. This is a short-route. The amygdala triggers a flight or fight physiological reaction. When this pathway was cut, rats could not be conditioned to fear a sound.

At the same time the sensory thalamus sends the information via the indirect pathway (long route) to the cortex which results in an appraisal of the stimulus and the outcome of this is sent to the amydala. According to LeDoux the advantage of having a direct and indirect route to the amygdala is flexibility in responses. In the case of danger the fast and direct pathway is useful because it saves time in dangerous or emergency situations. On the other hand the long pathway allows for a more thorough evaluation of a situation which can help avoid inappropriate responses.

The role of the amygdala in emotional responses, particularly fear, is supported by the case study of S.M. At age 20 S.M was diagnosed with Urbach-Wiethe disease which caused her amygdale to deteriorate. Despite being tested in the normal range for intelligence and other cognitive kills she is now unable to feel fear. To provoke fear in S.M., Feinstein et al (2010) exposed her to live snakes and spiders, took her on a tour of a haunted house, and showed her emotionally evocative films. On no occasion did SM exhibit fear, and she never endorsed feeling more than minimal levels of fear. Likewise, across a large battery of self-report questionnaires, 3 months of real-life experience sampling, and a life history replete with traumatic events, S.M failed to exhibit fear.

Conclusion

The primacy of biology and cognition in emotion remains open to debate. However what research does show is that there is a high level of interaction between the two and that emotion is a combination of both physiological arousal and cognition.

12. Evaluate one theory of how emotion may affect one cognitive process (memory)

example exam approach: In this answer I will evaluate the Flashbulb theory of emotions and its affect on memory

Emotions can have a powerful affect on memory. They can cause us to forget (Freud's theory of repression) or cause us to have vivid and permanent memories.

Memories of surprising, important or emotionally impacting events can be particularly vivid and enduring and incredibly we don't just remember the emotional event but mundane information surrounding the event. People can have very clear memories of where they were, what they did, and what they felt about the event.

Brown and Kulik (1977) called this "Flashbulb memory." Flasbulb memories include both the central event *and* the circumstances in which one learned of the event. They suggested that events with high levels of surprise and high levels of consequentiality or emotional arousal produce a mental photograph that preserves the scene in its entirety. Examples of such notable incidents include the assassination of President Kennedy, the Challenger explosion, the death of Princess Diana and more recently, 9/11 and the death of Micheal Jackson.

In an early flashbulb memory (FBM) study Brown & Kulik (1977) asked participants " Do you recall the circumstances in which you first heard that…" for 10 person-event cues including the assassination of John F Kennedy and Martin Luther King. Participants then narrated their personal circumstances of hearing the news. Brown & Kilik found that people had very clear memories of the place, ongoing event, informant, and feelings surrounding the event.

The relevance or emotional significance (consequentiality) of an event to a person's life would seem to increase its likelihood of being stored as a 'flashbulb memory'. Brown and Kulik found that 75% of black people asked were able to recall the assassination of Martin Luther King, while just 33% of white people asked could do the same.

According to Brown & Kulik a special biological memory mechanism exists that, when triggered by high levels of surprise and consequentiality causes the whole scene to be 'printed' onto the memory. A permanent record of the contents of awareness for the period immediately surrounding the shocking experience is created. This record is detailed, accurate, vivid, and resistant to forgetting.

Evaluation

Although at the time the special-mechanism concept was just a hypothesis it has been supported by recent findings in neuroscience – emotional events are better remembered than less emotional events.

Sharot et al (2006) found that for individuals who were close to the World Trade Center, the retrieval of 9/11 memories activated certain part of the brain. Participants were asked to recall events while hooked up to an fMRI scanner. Recall activated circuits in a part of the brain known as the amygdala. The release of stress-related hormones, signaled by the amygdala may account for some of the power and persistence that characterize many highly emotional or traumatic experiences.

Do Flashbulb memories differ from other forms of memory?"

However Neisser has argued that the flashbulb memory is not a special memory. People do not always know that event is important until later. Neisser argued that FMs were simply ordinary memories made clearer and longer lasting by frequent rehearsal after the event. This argument seems quite logical, as particularly in this global age the media and society frequently replay and retell events of extreme public attention or emotion. Flashbulb memories could therefore be seen as memories that have be actively reconstructed to such an extent that they can be clearly replayed in our minds.

Are flashbulb memories accurate ?
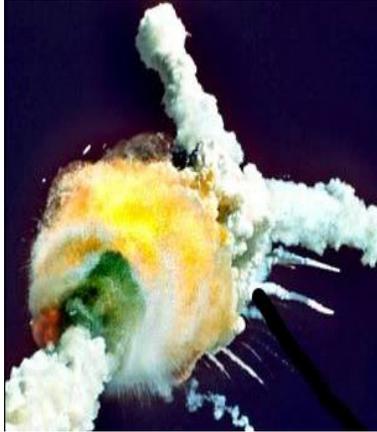
This also questions the validity and accuracy of "flashbulb memories" in that they are memories actively reconstructed and transformed over time in 1986.

Neisser & Harsch (1992) measured flashbulb memories of the shuttle Challenger explosion in 1986. They investigated people's memory accuracy of the event 24 hours after the incident and again 2 years later. The participants were very confident that their memories were correct, but the researchers found that 40% of the participants had distorted memories in the final reports they made. Possibly post-event information had influenced their memories.

A study by Christianson & Loftus (1987) found that emotional arousal enhanced recall of information central to the event that elicited the emotion, but disrupted recall of peripheral (surrounding) details. In their study, participants were presented with one of two matched slide sequences depicting either an emotional event (a boy hit by a car) or a neutral event (a boy walking beside a car). All participants wrote down the central feature of each slide. Participants who viewed the emotional slide sequence were better able to recall the central features than participants who viewed the neutral sequence, but they were less able to recognize the particular slides they had seen

the *socio-cultural* level of analysis

1.   Outline principles that define the Socio-cultural level of analysis

2.   Explain how these principles may be demonstrated in research

1.The Social situation influences individual behaviour

According to Sabini et al. (2001) one of the most important findings in social psychology is the idea that social *situations* influence behavior as much as individual factors. The socio-cultural level looks at behavior as dependent upon the current situation or circumstances ie. events external to the individual. This is in contrast to behaviours that are dependent on dispositional or internal factors such as personality.

Classic studies support this such as Zimbardo's Stanford prison experiment which investigated the effects of putting 'normal' people in difficult situations. Volunteers were randomly assigned to either prisoner or guard in a prison simulation, and within 6 days the experiment had to be suspended as a result of guard brutality and prisoner rebellion. Zimbardo concluded it was the situation the guards were in (eg. empowerment) rather than any negative personality traits that explained their brutal behavior.

Similar conclusions were drawn by Milgram who investigated the dispositional theory of Nazi soldiers – was it the situation or certain personality types that made them follow orders to execute Jews ? In the Obedience experiments, ordinary people fulfilled orders to administer what appeared to be fatal electric shocks to a confederate of the experimenter. Milgram argued it was situational cues (such as the prestigious setting, and authority of the experimenter) that compelled participants to adminster dangerous shocks.

However as humans we have a tendency to over-emphasise dispositional factors over situational. This is known as the fundamental attribution error and its effects can be seen in studies such as Ross et al   (1977) in which college students were randomly assigned to either be 'questioners (to invent their own and ask challenging questions),'answerers' in a quiz and . They found that 'questioners' were rated as having better general knowledge ability than the answerers. This supports the FAE tendency to rate dispositional factors (supposed intelligence) over situational factors (the fact that they designed their own questions).

2. Culture influences behaviour

Culture can be defined as the norms and values that define a society. In an ever more multi-cultural society there is a need to understand the effect of culture on a person's behavior, because the study of culture may help us better understand and appreciate cultural differences.

This is well illustrated is Hofstede's pioneering research (1984) into work-related attitudes and values of IBM employees in 40 different countries. It has been used extensively to understand national culture in general. Hofstede identified 5 dimensions of culture. One dimension is Individualism – collectivism.   Individualist cultures are defined by personal characteristics (e.g. individual choices, achievements, autonomy and expression). Collectivistic societies are defined by the characteristics of the collective groups to which one belongs (group cohesiveness, harmony and goals).

Individualism – Collectivism is the most widely applied dimension in understanding cross-cultural variation and a number of studies in psychology that have been repeated cross -culturally have often drawn on this

dimension to explain differences in behaviour. For example, differences in conformity may be understood as seen as a cultural tendency towards individualism (low conformity) and collectivism (high conformity).

Smith and Bond (1993) carried out a review of 31 conformity studies and found that levels of conformity- that is the percentage of incorrect responses ranged from 14% among Belgian students to 58 % among Indian teachers in Fiji, with an average of 31.2%. Conformity was lower among participants from individualistic cultures- that is North America, North-West Europe (25.3%) - than from collectivist cultures- that is Africa, Asia, Oceania, and South America (37.1%).

Studies into attachment (Ijzendoorn and Kroonenberg 1988) have shown different attachment styles may also depend on the individualist/collectivist tendency of certain countries. Studies into mental health disorders show there is a correlation between depression and anxiety and individualist societies (Chiao, 2009).

3. Humans have a social self and the need to belong to groups

Humans are social animals and have a social self. People not only have a personal identity but also a collective or social one. Part of this social self is the need to belong. Abraham Maslow suggested that the need to belong was a major source of human motivation.

He thought that it was one of five basic needs, along with physiological safety self-esteem and self- actualization. These are arranged on a hierarchy and must be satisfied in order.

"The need to belong" is a theory promoted by social psychologists, such as Baumeister and Leary (1995). It states that humans experience a need to form and maintain interpersonal relationships and group memberships. This "need to belong" is innate, although the intensity and expression of the desire varies amongst individuals and cultures

This need to belong can be seen in Social identity theory (Tajfel, 1979). Social identity is a person's sense of who they are based on their group membership (s). Tajfel proposed that the groups (e.g. social class, family, football team etc.) which people belonged to were an important source of pride and self-esteem. Identification with and membership of a group give us a social identity: a sense of belonging to the social world. Our thinking and behaviour may be strongly influenced by membership of a group.

3.Discuss ethical considerations related to research studies at the socio-cultural level of analysis

NB: This includes suggestions for all 3 levels of analysis. Add your own examples to the table.

Ethical guideline (based on BPS)	explanation	comment	example
Consent	*Participants must be informed* about the nature of the study and agree to participate (ie. able to give informed consent)	Informed consent is very difficult to achieve without jeopardizing the real objective of the study.	Milgram (1963) participants had volunteered to take part in an experiment on learning, not obedience Bandura (1963) - Children not able to give own consent
Deception	Information must not be withheld from participants, nor should they be mislead.	Studies involving deception are unethical but sometimes necessary.	Milgram (1963) participants were led to believe they were giving real electric shocks. Schacter & Singer – participants believed they were taking a vitamin injection
Right to withdraw	Participants should have the right to withdraw at any time, regardless of whether or not they were paid for their participation.	Some participants feel obliged to continue, although they have been given the right to withdraw.	MIlgram (1963) pushed the line with trying to coerce participants to continue the shocks. Zimbardo (Stanford Prison experiment) made it hard for prisoners to leave.
Debriefing	Following an investigation, participants should be fully informed about the nature and purpose of the of the research	A useful way of making sure participant is not affected by the study. Can help in cases of deception and when it was difficult to obtain informed consent.	Milgram fully debriefed his participants.
Protection of participants	Researchers have responsibility for protecting participants from physical or mental harm, including undue stress.	Not always guaranteed, though debriefing does help. Is the study justified if the participants are harmed in some way?	Milgram – induced stress and anxiety Zimbardo – psychological stress Bandura – encouraging aggression in young children Speisman – possible psychological distress Schacter & Singer – possible harm from injection and stress at 'angry' situation Money – Case of Brenda/Bruce (later David) Reimer – but through incredible and long term stress and deception
Confidentiality	Participants have the right to confidentiality.	Usually quite easy to maintain confidentiality.	Pseudonym was used in the case of H.M but not Clive Wearing David Reimer was the subject of a documentary

4. Discuss how and why particular research methods are used at the Socio-cultural level of analysis

Typical research method	Explanation / example	Evaluation
Semi-structured Interviews	Semi-structured interviews are much like an informal conversation. They follow a schedule but allow for flexibility and freedom in response and follow-up and therefore give us insight into people's thinking which helps us understand their behaviour in a social situation eg. Marcia's (1955) semi-structured identity status interviews allowed researchers to investigate teenage views on adolescence.	Although ecological validity is high participants may not respond truthfully, either because they cannot remember or because they wish to present themselves in a socially acceptable manner(social desirability bias)
Observations	Allow us to see how people behave in natural social situations. However observations can be also be performed in labs through one-way mirrors eg. Bandura's (1963) Bobo doll study of imitated aggression in young children, and Ainsworth's (1967) Strange Situation attachment study of mother-and-child interactions. An example of a covert, participant observation is that of Rosenhan's (1973) study into the validity of and institutionalization of participants faking the symptoms of schizophrenia.	There is little or no control of extraneous variables therefore we cannot make cause and effect statements. There is also the problem of researcher bias and participant bias in observations. Ethical issues can include lack of informed consent and invasion of privacy.

5. Discuss the role of situational and dispositional factors in explaining behaviour

Heider (1958) pointed out that we all have a tendency to want to explain human behavior. According to Heider when we observe somebody's behavior we are inclined to attribute its cause to either dispositional causes (such as internal traits, abilities, feelings, personality) or situational causes (that is the situation or environment we are in).

Whether a behavior is situational or dispositional or both is debatable. But as humans we have a tendency to over-emphasize dispositional factors over situational. This is known as the fundamental attribution error and its effects can be seen in studies such as Ross et al (1977) in which college students were randomly assigned to either be 'questioners (to invent their own and ask challenging questions),'answerers' in a quiz and . They found that 'questioners' were rated as having better general knowledge ability than the answerers. This supports the FAE tendency to rate dispositional factors (supposed intelligence) over situational factors (the fact that they designed their own questions). This may occur because observers are more likely to notice the actor and their behavior (Hill, p. 56)

Attributions are the beliefs about why people behave as they do; attributions can be internal (dispositional) or external (situational).

1. **Dispositional attributions:** Sometimes we believe that the way a person has behaved is caused by factors which are specific to them as a person, their personality or other internal and generally unchanging characteristics.

2. **Situational attributions:** Sometimes we assume that someone's behaviour is dependent upon their current circumstances or situation; the cause of their behaviour is seen to be external to the individual, e.g. circumstances or luck.

Similarly Bierbauer (1979) found that participants watching a film of Milgram's experiments on obedience were more likely to use dispositional attributions to explain the 'teachers' (eg. they were cruel) than situational attributions (eg. they were intimidated by the experimenter).

Studies in social psychology have investigated the role of situational and dispositional causes. Classic studies such as Zimbardo's Stanford prison experiment investigated the effects of putting 'normal' people in difficult situations. Volunteers were randomly assigned to either prisoner or guard in a prison simulation, and within 6 days the experiment had to be suspended as a result of guard brutality and prisoner rebellion. Zimbardo concluded it was the situation the guards were in (eg. empowerment) rather than any negative personality traits that explained their brutal behavior.

Similar conclusions were drawn by Milgram who investigated the dispositional attribution of Nazi German soldiers. In the Obedience experiments, ordinary people fulfilled orders to administer what appeared to be fatal electric shocks to a confederate of the experimenter. Milgram argued it was situational cues (such as the prestigious setting, and authority of the experimenter) that compelled participants to adminster dangerous shocks.

Finally situational factors seem to explain differences in conformity levels, such as group size and lack of unanimity amongst the group. Asch found the bigger the majority group (no of confederates) the more people conformed, **but only up to a certain point**. When the majority consisted of only 2 people, conformity responses dropped to 14% of their total judgments. Optimum conformity effects (32%) were found with a majority of 3.
In another variation of the original experiment Asch broke up the unanimity (total agreement) of the group by introduced a dissenting confederate. Asch (1951) found that even the presence of just one confederate that goes against the majority choice can reduce conformity as much as 80%.

6. Discuss two errors in attributions

Naïve Psychologists

Humans are rationale and analytical beings who seek to understand human behavior. Fritz Heider (1958), argued that people are motivated by two primary needs; 1) the need to form a coherent view of the world and 2) the need to gain control over the environment. In this way we are all naïve-psychologists – using common-sense beliefs to try and understand the social world. Heider believe that people act on the basis of their beliefs, valid or otherwise. Therefore, beliefs must be taken into account in the study of human behavior.

Attribution theory

According to Heider making causal attributions in a major driving force in human social inference. The experiment below illustrates this need. Heider and Simmel (1944) asked participants to simply describe the movement of abstract geometric shapes. They found a general tendency to describe the movement in ways indicative of human intentions and motives (see Figure 2.1). This readiness to ascribe human intentionality to things that we know have little or no capacity for such intention is a common characteristic of how we think.

- Participants were asked to interpret a moving picture- film in which three geometric figures (a large triangle, a small triangle, and a disc) were shown moving in various directions and at various speeds in and around a rectangle which could be opened or closed with a "door".

- Out of 34 participants, only one participant described the film in geometrical terms (e.g., "A large triangle enters a rectangle and moves around."

- All other participants described the movements of actions of animate beings, mostly humans but, in two cases, as birds.

- Example response: "A man has planned to meet a girl and the girl comes along with another man. The first man tells the second to go. The second man shakes his head. Then the two men have a fight."

Figure 2.1   An illustration of the picture-film used in the Heider and Simmel (1944) study

Types of attribution: Situational and dispositional

According to Heider (1958), we produce attributions (beliefs about the causes of behaviour) based on two sources of information.

- Internal attributions - based on something within the individual whose behaviour is being observed - their natural character. An internal attribution is any explanation that locates the cause as being internal to the person such as personality, mood, abilities, attitudes, and effort.
- External attributions - based on something external to that individual - nothing to do with who they are specifically, it is the situation they are in. An external attribution is any explanation that locates the cause as being external to the person such as the actions of others, the nature of the situation, social pressures, or luck

Internal attributions are often referred to as dispositional attributions while external attributions are called situational attributions. Imagine you are in a supermarket, and at the checkout the assistant is rude to you. How do you explain his behavior? Given that you do not know him or, to be more precise, you don't have access to his thoughts and feelings, you can only infer a cause from his behavior. You might come to the conclusion that he is a rude and unpleasant person (a dispositional, internal attribution). Alternatively, you might think he is just having a bad day – maybe he has just had an argument with his partner (a situational attribution).

Errors in attributions

Every day people make causal explanations for their own and others' behavior, as well as for events in general. These explanations, or attributions, are a crucial form of information processing that help explain the situations and behavior occurring in the world around us (Kazdin, 2000). However this information processing is not necessarily accurate. Research has shown that we have tendency to make automatic errors in our attributions. There are two important errors or mistakes we tend make when assigning attributions.

1.Fundamental Attribution Error.

This refers to the tendency to over estimate the dispositional and underestimate the situational factors when explaining the behaviors of others. This may be a result of our tendency to pay more attention to the situation rather than to the individual (Heider, 1958).

Research in psychology

Fundamental attribution error: Lee et al. (1977)

The aim of this ingenious study was to see if student participants would make the fundamental attribution error even when they knew that all the actors were simply playing a role. In their study, participants were randomly assigned to one of three roles: a game show host, contestants on the game show, or members of the audience. The game show hosts were instructed to design their own questions. The audience then watched the game show through the series of questions.

When the game show was over, the observers were asked to rank the intelligence of the people who had taken part. They consistently ranked the game show host as the most intelligent, even though they knew that this person was randomly assigned to this position, and—more significantly—he or she had written the questions. They failed to attribute the role to the person's situation—that is, being allowed to ask the questions—and instead attributed the person's performance to dispositional factors—in this case, intelligence.

There are some concerns about the experiment. First, the sample is somewhat problematic. The researchers made use of student participants. University students spend their days listening to professors who are seen as authorities. Therefore, one cannot be sure that this response to authority figures who ask questions and give answers is not a learned response rather than an attribution error. Second, student samples are not representative of the greater population, and therefore it is questionable whether the findings can be generalized.

This study reflects what we see in everyday life. People with social power usually initiate and control conversations; their knowledge concerning a particular topic can give others the impression that they are knowledgeable on a large range of other topics as well. Medical doctors and teachers are often seen as experts on topics that are not within their area of expertise. When they publish something outside of their field, their work is rarely challenged.

For example, the last time you were driving and got cut off did you say to yourself "What a lousy driver " or did you say "She must be having a rough day." Chances are that this behavior was assigned mostly internal attributes and you didn't give a second thought to what external factors are playing a role in her driving behavior.

Why do we make the FAE ? Attributions are usually dependent upon the focus of our attention. Usually, we focus on the person within the situation, leading to personality- centered (internal) attributions, especially when we have little information about the individual to make a balanced judgment. Support for the FAE come can be seen in the study by Lee et al (1977) above (taken from Crane, p. 105)

Cultural differences in the FAE

Research suggests there are cultural differences in the fundamental attribution error: people from individualistic cultures are more prone to the error while people from collectivistic cultures commit less of it. One explanation for this difference in attribution lies in the way people of different cultural orientation perceive themselves in the environment. Markus and Kitayama (1991) argue that (individualistic) Westerners tend to see themselves as independent agents and therefore prone to focus on individual objects rather than contextual details. This can be seen in the following studies.
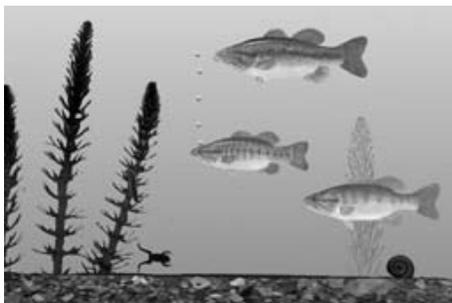
Morris & Peng (1994) conducted a content analysis of Chinese and American newspapers covering the same two mass – murder

incidents. They found that Chinese accounts were more likely to make report situational factors than American accounts.

In another study they got American and Chinese participants to watch cartoons of a group of fish swimming around and asked them to explain the observed movements. Again Chinese participants explained certain events (eg. the fish swimming in front of several others) in more situational terms   (eg. the fish is being hunted by others) than the American participants.

2. Self-Serving Bias

We tend to equate successes to internal and failures to external attributes (Miller & Ross, 1975). Imagine getting a promotion. Most of us will feel that this success is due to hard work, intelligence, dedication, and similar internal factors. But if you are fired, we are likely attribute it to an unfair boss, or poor decision-making for example.

 Lau and Russell (1980) found that American professional athletes and coaches attribute 80% of their wins to internal factors (e.g. ability, skill, professionalism). Losses are far more likely to be attributed to external factors (e.g. bad luck, unfair refereeing).

Zuckerman (1979) argued that the effect depends on a desire to maintain self-esteem. If we can attribute our successes to dispositional factors it boosts our self esteem and if we can attribute our failures to factors beyond our control it can protect our self-esteem.

This can be seen in the fact that the opposite of the self serving bias is true for those who are depressed, have low self-esteem, or view themselves negatively. People with depression often attribute failures to their own negative dispositional qualities (eg. stupidity, uselessness, lack of ability, lack of intelligence) and successes to external factors such as luck. (Abramson et al, 1978)

Evidence from cross-cultural studies is consistent with the self esteem interpretation. Heine et al. (1999), for example, found that members of collectivistic cultures (e.g. Japan) are far less likely to strive for positive self-esteem than individuals from individualistic cultures (e.g. USA). Kashima & Triandis (1986) asked American and Japanese participants to remember slides of scenes from unfamiliar countries. When asked to explain their performance the Americans tended to attribute their success in remembering accurate details to *ability*, whilst the Japanese in contrast, tended to attribute their failures to *lack of ability.* The Japanese were found to be less likely to make self-serving attributions than Americans thus demonstrating that the link between the self-serving bias and maintenance of self-esteem at least in individualist societies.

references

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http://wapedia.mobi/en/Correspondence_bias

7. Evaluate Social Identity theory, making reference to relevant studies

A social identity theory explanation of prejudice and discrimination
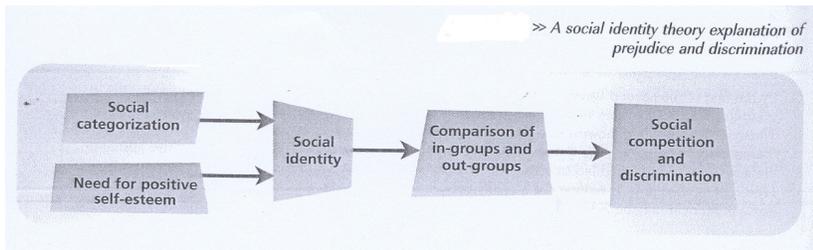
Social Identity Theory was developed by Tajfel and Turner in 1979 to understand intergroup relations and group processes - particularly negative or hostile ones.

Social identity theory is based on the assumption that individuals have a basic need for positive self-esteem, and that self-esteem is wrapped in both personal *and* social identities. We all have various social identities, based on the groups to which we belong and with which we identify. These social identities may include racial group, nationality, social group and sports club.

According to Tajfel (1981) social identity is "that part of the individual's self-concept which derives from their knowledge of membership of a social group, together with the value and emotional significance of that membership"

Our social identity contributes to how we feel about ourselves so we seek positive social identities to maintain and enhance our self-esteem. One way of achieving a positive social identity is to compare our group (in-group) with other groups (out-groups). Therefore we develop in-group bias or favoritism. Social identity theory predicts that this bias towards one's own group can lead to hostility and prejudice towards another.

There are three fundamental cognitive processes underlying social identity theory;

Categorization : The first is our tendency to categorize individuals, including ourselves into groups. This leads to categorization of the social world into 'them' and 'us'. Categorizing or grouping ourselves can take place with incredible ease as demonstrated in Tajfel's minimal group studies.

Identification: We also adopt the identity of the group we have categorized ourselves as belonging to which means we may adopt some of the values and behaviors of that group. Having this social identity enhances our self-esteem.

Comparison: We also enhance the sense of identity by making comparisons with other groups (known as out-groups). Having a positive social identity or positive distinctiveness means drawing favorable comparisons with other relevant groups. This can be seen in a study by Cialdini (1976). They observed college football supporters on the days immediately following inter-college games. If their team won college scarves and insignia were much more in evidence around the college campus than if their team lost. The victory gave a sense of positive-distinctiveness for the group and therefore enhanced self esteem.

Evaluation of Social Identity theory

According to social identity theory we have a strong need to form social identities. The fact that individuals form a social identity with minimum in common can be seen on the Tajfel et al (1971) 'Minimal Group studies'. They conducted a study in which Bristol schoolboys were assigned at random to one of two meaningless groups. They believed they had been assigned on the basis they had either over-estimated or underestimated dots shown on a screen. Tajfel found that individual members would not allocate more points to their own group but would often maximize the difference between the two groups – even if it meant their own group receiving fewer points overall. However in an artificial lab experiment allegiance to the group may be very short lived, or unrealistic. The study may have had demand characteristics and the sample wasn't representative of the general population. Brown (1986) points out that boys of this age, when set tasks by adults, might think that they are expected to compete with each other

Social identity theory has been successfully applied to numerous phenomena within social psychology including stereotyping, prejudice and hostility. According to the theory Prejudice is caused by social processes occurring between groups of people. It happens because of the way our sense of self (identity) is determined by the groups we belong to

This idea is supported Reicher (1984). He studied the riots in the mainly Afro-Carribean area of St Paul's in Bristol in 1981. The riots were triggered by a police raid on a local business in an area of increasing racial tension. Reicher focused mainly on the targets of the rioting. The targets of the violence were very specific, for example banks, local authority (government) buildings and police cars were attacked, whilst nearby houses, community buildings and local shops were not. Contrary to popular belief that the riots reflected a random mob mentality Reicher argued that the rioting was a result of the local population reasserting their social identity when it was threatened by the action of the police. They only attacked out- group targets - anyone or thing that represented authority. Reicher reported an increase in sense of identity and community pride after the riots.

However cross-cultural studies question aspects of social identity theory. Although the need for a social identity appears universal the processes involved are culturally specific. *The notion that individuals are motivated to identify with groups to enhance self – esteem may apply more to individualist than collectivist societies*. Individualist societies are considered more autonomous and priority is on personal achievement rather than group achievements. Self-esteem is linked to personal achievement. In contrast collectivist societies are more inter-dependent, and emphasis is on group achievement rather than individual. There is no strong link between individual success and self-esteem.

One way to test this is by looking at and comparing self-serving biases. The tendency to take credit for success (and not accept blame for failure) is known as the self-serving bias. Recall the main explanation for the SSB is the enhancement of self esteem. Research has found cultural differences in the self – serving bias. Kashima & Triandis (1986) asked American and Japanese participants to remember slides of scenes from unfamiliar countries. When asked to explain their performance the Americans tended to attribute their success in remembering accurate details to *ability*, whilst the Japanese in contrast, tended to attribute their failures to *lack of ability.* This challenges the universality of the idea that social identity serves to enhance self-esteem.

Finally one of the aims of SIT was to favor situational explanations over dispositional ones. Yet there is evidence to suggest that individual differences do affect SIT process. Platow et al (1990) for example found that competitive participants showed greater in-group favoritism than co-operative participants.

8. Explain the formation of stereotypes and their effect on behaviour

example exam approach - In this answer I will explain the formation of stereotypes from two perspectives – 'Grain of truth' and 'Illusory Correlation'. I will then explain how the 'stereotype threat' affects behavior.

A major way in which we simplify our social world is through stereotyping. Stereotypes have been defined as 'widely shared assumptions about the personalities, attitudes and behavior of people based on group membership (Hogg & Vaughan, 1995), but how do they develop ?

Grain of truth' hypothesis (Campbell, 1967)

One explanation for the formation of stereotypes is that they derive, however loosely, from some aspect of social reality. This does not mean that any particular stereotypes of an outgroup is in some way objectively 'true', but rather that a group's culturally distinctive or different patterns of behavior could provide the seed-bed in which stereotypical perceptions could flourish.

This was shown experimentally in a study by Ford & Stangor (1992) into the formation of new group stereotypes. They found that the traits that most objectively distinguished two target groups were most likely to emerge as central to a set of stereotypic beliefs about groups. Ford & Stangor asked psychology students to participate in an experiment in exchange for course credit. They were presented with booklets of behavioural descriptions of 2 fictitious groups (blue group and red group). Descriptions related to either friendly, intelligent or other behaviours. However differences were emphasized in each group – ie. the blue group had more descriptions of friendly but less intelligent behaviours (eg. " A member of the blue group failed his driving test for the fourth time) and vice versa.

When later asked to give spontaneous characterizations of the groups participants characterized the groups in terms of their differences. Thus supporting the idea that stereotypes therefore originate in experiences of group differences and must contain at least a 'grain of truth'.

This is the basis of Campbell's grain of truth hypothesis. According to Campbell (1967) stereotypes originate from two major sources – a) a person's experience with another person or group distinctive patterns of behaviour, (as shown above) and b) the communication of those experiences to other people. Experiences are generalized to others by what he referred to as the gatekeepers – parents, media etc who pass on experiences.

So for example the stereotype of women being bad drivers must have been experienced at one time and that experience passed on. The process of communication would establish the stereotype as a truism in many people's minds.

One criticism however of this theory is that it assumes that the person having the original experience made a perfectly logical inference, but we know errors in attribution are common.

Illusory Correlation (Hamilton & Gifford, 1976)

Hamilton and Gifford argue that stereotypes form because of our tendency to see a relationship between two variables even when there is none, particular a relationship between minority groups and negative behaviours.

In a classic experiment Hamilton and Gifford (1976) asked participants to read desirable and undesirable trait adjectives about the members of two groups (26 statements about people in Group A and 13 statements about people in Group B). Although the number of statements did differ   (there were twice as many statements about Group A people than Group B) there was an even distribution of desirable and undesirable statements about each group.

	Group A / Majority	Group B / Minority
Desirable	(18) eg. Jane, a member of Group A, visited a sick friend in the hospital.	(9) Sally, a member of Group A, visited a sick friend in the hospital.
Undesirable	(8) Roy a member of Group A always talks about himself	(4) Bill, a member of Group B always talks about himself

Afterwards, participants completed group–trait memory and evaluative judgment tasks.There was no reason to judge Group B, as any more likely to engage in undesirable behaviors than Group A. Yet results showed that participants over-estimated the frequency of undesirable behaviours belonging to Group B

Wegner and Vallacher (1976) have argued that the illusory correlation is similar to the fundamental attribution error. In the same way that other people's behavior tends to be explained in dispositional rather than situational terms, rare/undesirable behavior can be explained by attributing it to a minority group (McIlveen & Gross, p. 15). In other words people tend to over-estimate the association between   (ie. correlation) between negative characteristics and minority group membership. By analogy, suppose the proportion of African Americans versus the proportion of European Americans who commit crimes are the actually the same. Nevertheless because fewer residents of the US are African American, people may overestimate the proportion of African Americans who commit crimes relative to the proportion of European Americans who do so (O Greene et al, p. 341).

One explanation for this phenomena involves the tendency for distinctive information to be highly accessible. At the time this idea was put forward, seeing someone from a minority ethnic group and seeing someone being mugged for example were both rare, so because minority group members are by definition more uncommon, it is more noticeable when we encounter them. Furthermore undesirable behavior is also rare, and therefore more distinctive/noticeable. Thus a minority group member performing an undesirable act constitutes a doubly distinctive event that is especially memorable.

Once illusory correlations are made people tend to seek out or remember information that supports this relationship. This is known at the *confirmation bias*. Generally, this means that people tend to overlook information that contradicts what they already believe. In a social context, they pay attention to behaviours that confirm what they believe about a group and ignore those behaviours contrary to their beliefs. Confirmation bias makes stereotypical thinking resistant to change (Crane, p. 109)

The problem with this explanation of course, is that many people hold this kind of stereotype who have never witnessed such kind of events as outlined above, so at best it can only provide a partial explanation (Cox, p. 195).

Furthermore research into stereotypes is difficult to carry out. Often, social desirability is a confounding variable in such research. The desire for political correctness may influence self report measures (Crane, p. 110).

The effects of stereotypes on behavior

Stereotype threat.

A "stereotype threat" arises when one is in a situation where one has the fear of doing something that would inadvertently confirm a negative stereotype. It is cued by the mere recognition that a negative group stereotype could apply to you in a given situation. It is important to understand that the person may experience a threat even if he or she does not believe the stereotype. Simply, in the context, the person perceives that the stereotype is a plausible characterization of himself or herself by others (Steele & Aronson, 1995).

Stereotype Threat

Ability ($p<.01$)   Problem Solving (N.S.)

African-American in the Ability condition lower than in Problem Solving ($p<.01$) (Based on Steele and Aronson, 1995, p. 800)
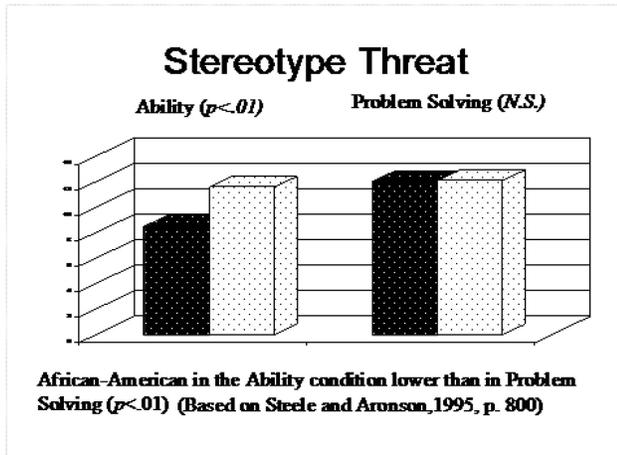
Their experiment involved African American and White college students who took a difficult test using items from an aptitude test (American GRE Verbal exam) under one of two conditions.

In the stereotype threat condition, students were told that their performance on the test would be a good indicator of their underlying intellectual abilities.

In the non-threat condition, they were told that the test was simply a problem solving exercise and was not diagnostic of ability.

Performance was compared in the two conditions and results showed that African American participants performed less well than their white counterparts in the stereotype threat condition, but in the non-threat condition their performance equaled that of their white counterparts.

In another study (Shih, Pittinsky, and Ambady, 1999) Asian women were subtly reminded (with a questionnaire) of either their Asian identity or their female identity prior to taking a difficult math test. Results showed that women reminded of their 'Asianness' performed better than the control group and women reminded of their female identity performed worse than the control group

According to Steele, stereotype threat generates "spotlight anxiety" (Steele & Aronson, 1995, p. 809), which causes emotional distress and "vigilant worry" that may undermine performance. Students worry that their future may be compromised by society's perception and treatment of their group so they do not focus their full attention on the test questions. Students taking the test under stereotype threat might also become inefficient on the test by rereading the questions and the answer choices, as well as rechecking their answers, more than when not under stereotype threat. It also can induce "attributional ambiguity" —a person gets a low grade and asks, "Is it something about me or because of my race?"

9. Explain Social Learning Theory

(making reference to two relevant studies)

Social learning (Bandura, 1965) is the learning of social behaviours through the observing and replicating of behaviours seen in others. It refers mainly to the learning of social and moral behaviours after observing and imitating a model.

Although social learning can take place at any stage in life, it is thought to be particularly important during <u>childhood</u>, particularly as <u>authority</u> becomes important.

The 'model' (person being observed) has to be appropriate, relevant and similar to the observer. Children can also model on their parents and siblings.

However not all social learning is positive. Alcohol and other drug use often begins when children and teenagers imitate people they admire.

Required conditions

Bandura gave four conditions required for a person to successfully model the behaviour of someone else:

Attention

Attention is the first component of observational learning. Individuals cannot learn much by observation unless they perceive and attend to the significant features of the modeled behavior. Attention can be influenced by the model's distinctiveness, attractiveness, competence or power

Retention

The observer must store information about the model's behavior in memory. Retention includes symbolic coding, mental images and cognitive organization. The ability to retrieve information later and act on it is vital to social learning.

Reproduction

Once you have paid attention to the model and retained the information, it is time to actually perform the behavior you observed. An observer must be physically and cognitively capable of reproducing the behavior. Imitation and practice leads to improvement of the learnt behavior.

Motivation

Finally in order for observational learning to be successful, you have to be motivated to imitate the behavior that has been modeled. The presence of reinforcement (reward) or punishment is an important motivational factor and is an indirect form of learning is known as vicarious reinforcement.

Bobo Doll Studies

(Bandura, Ross, & Ross, 1963)

Bandura et al devised a lab experiment, to test the observation and modelling of aggressive behavior. Participants were 72 children (half girls, half boys), all around 4 years of age. The children were all rated for aggression before the study and the groups were matched to make sure that one did not have more aggressive children in it than another. 24 children watched an aggressive act, 24 watched non-aggressive acts, and the remaining 24, acting as a control group say neither aggressive no aggressive acts.

The children in each group were playing quietly when an adult entered. In the 'aggressive' condition, the adult played quietly for a while in another corner, and then started to act aggressively towards a bobo doll. In the non aggressive condition, the adult continued to play quietly before leaving. The children were then put in a slightly aggressive state by being told they could not play with something they found interesting – this was to ensure that the children were all at the same level of arousal before their behavior was observed. Then all children were observed playing, with access to a bobo doll.

The children in the non-aggressive group showed almost no aggression. Those who watched the aggressive models imitated their behaviour and were aggressive. Children who watched the aggressive models showed both physical and verbal aggression. 88% of the children imitated the aggressive behavior. The acts were clearly those that the adult had carried out, not just general aggression.

Vicarious reinforcement

An observer's behavior can also be affected by the positive or negative consequences of a model's behavior. So we not only watch what people do, but we watch what happens when they do things. This is known as vicarious reinforcement. We are more likely to imitate behavior that is rewarded and refrain from behavior that is punished.

Bandura (1965) used a similar experimental set up to the one outlined above to test vicarious reinforcement. The experiment had different consequences for the model's aggression to the three groups of children. One group saw the model's aggression being rewarded (being given sweets and a drink for a "championship performance", one group saw the model being punished for the aggression (scolded), and the third group saw no specific consequences (control condition)

When allowed to enter the playroom, children in the reward and control conditions imitated more of aggressive actions of the model than did the children in the punishment condition. The children in model punished group had clearly learnt the aggression by observational learning, but did not imitate it because they expected negative consequences. Reinforcement gained by watching another person is known as vicarious reinforcement.

Evaluation

- SLT helps explain why behaviours may be generationally or culturally passed on.

- It is a theory well supported by research such as the Bobo doll studies, and has helped us understand aggression and how the media/film industry might contribute to violence in society. Bandura's <u>Bobo doll experiment</u> is widely cited in psychology as a demonstration of social learning showing that children are more likely to engage in violent play after watching an adult do the same.

- It has particularly made us aware of our responsibility as adults to model appropriate behavior to young children.

- The discovery of **mirror neurons** has lent biological support to the theory of social learning. Although research is in its infancy the recent discovery of "mirror neurons" in primates may constitute a neurological basis for imitation. These are neurons which fire both if the animal does something itself, and if it observes the action being done by another.

- However a major criticism of SLT is that it provides an oversimplified description of human behavior. This might be demonstrated in the St Helena study in which children who were newly exposed to TV did not demonstrate increased levels of violence. See Crane p. 114

- Although it can explain some quite complex behavior it cannot adequately account for how we develop a whole range of behavior including thoughts and feelings. We have a lot of cognitive control over our behavior and just because we have had experiences of violence does not mean we have to reproduce such behavior. It is for this reason that Bandura modified his theory and in I986 renamed his SLT, Social Cognitive Theory (SCT), as a better description of how we learn from our social experiences.

10. Discuss the use of compliance techniques

Technique	Foot-in-the-door	Low-balling	Door-in-the-face
Definition	Requester persuades target to agree to a small request, then follows it up with a second and larger (actual target) request.	Two step technique in which the persuader secures agreement with request but then reveals a hidden cost	Another two-step technique in which a large request is made first and is then followed up by a smaller one (the target request)
Example	If target is persuaded to sign a petition first then s/he is more likely to comply when next asked to make a donation	A target books and pays for a package holiday and then is told that there are surcharges. S/he agrees to pay the surcharges.	A target is asked to do 5 hours voluntary work every week for a charity, and when they request is refused they are asked to simply make a small donation to the charity..
Supporting study	Sherman (1980) called residents in Indiana (USA) and asked them if, hypothetically, they would volunteer to spend 3 hours collecting for the American Cancer Society. Three days later, a second experimenter called the same people and actually requested help for this organization. Of those responding to the earlier request, 31% agreed to help. This is much higher than the 4% of a similar group of people who volunteered to help when approached directly.	Cialdini (1978) asked students whether they would participate in a psychology experiment that started at 7 am and most pps refused (control group). In an experimental condition Cialdini asked pps whether they would participate in an psychology experiment, and even though they weren't told a time most pps agreed Later they were told that it started at 7 am and given the chance to drop out if they wanted. On the day of the experiment 95% turned up as promised for the 7am appointment	Cialdini (1975) asked pps if they would escort a group of young criminals to the zoo; most refused (control group). In control group 2 pps were approached and asked to spend 2 hours per week as a peer counsellor to young criminals for around 2 years; again most said no. However in the experimental condition pps were asked to be peer counsellors and then the request was downgraded to escort children to the zoo (the target request). 50% agreed to the request.
Based on principle & theory	One explanation of why this may work comes from **self-perception theory**. Bem (1972) hypothesized that people sometimes infer their inner states (such as attitudes and emotions) from their behavior and the situation in which the behavior occurred. So in the above study when pps hypothetically agreed to collect money for a cancer charity they may engage in a self-perception process in whereby they label themselves as "helpful". Therefore when the second request is made these individuals are more likely to agree because afterall, *they are* helpful people. Thus the initial request stimulated a self-perception of helpfulness. Evidence for the self-perception theory has also been seen in real life situations. After teenagers participated in repeated and sustained volunteering services, their attitudes were demonstrated to have shifted to be more caring and considerate towards others (Brunelle, 2001)	One explanation for this can be found in **cognitive dissonance theory.** Festinger (1957) hypothesized that people want their attitudes and behaviors to be consistent with each other. If there is a conflict (dissonance) between the two an uncomfortable state may occur. In order to reduce the inner tension we feel we may do one of three things – change the belief, change the action or change the perception of the action. In the above study dissonance may occur between commitment to take part in the experiment but annoyance at the early start. How did ppts resolve this conflict ? According to cognitive dissonance theory they may have changed their beliefs about 7am being an unreasonable start time. Evidence for this theory comes from the Festinger & Carlsmith study (1957)	Cialdini proposed this could be explained by the **norm of reciprocity**. This means we should reciprocate (give back n return) favours done for us. The norm of reciprocity seems to be a universal phenomenon. So when someone presents a smaller, second request following the refusal of a larger request this second request may be seen as a concession on his/her part – a compromise in response to the initial refusal. Therefore given that the requester has made a concession by lowering the demand, the least the target an do is make a concession in return (reciprocate): the most obvious concession would be to agree to the smaller request. In the above study the requester downgraded his/her request from counsellng to zoo trip – therefore the target feels obliged to return the favour by agreeing to the zoo trip.

11. Evaluate research on conformity to group norms

Conformity can be defined as changing behaviour as a result of group pressures even though no direct request has been made to comply with the group. Sherif (1935) was one of the first researchers to investigate conformity using the autokinetic effect. This is an optical illusion experienced when a person is placed in a totally
dark room in which a stationary point of light *appears to move* because the person's perceptual system has no frame of reference for it.

Sherif asked individual participants to judge how far the light appeared to move on a number of trials. In the first experiment individuals were asked to estimate how far they thought the light moved, then they were asked together in a group. Estimates in the group converged (merged together) as they established a **'group norm'**. This was close to the average of estimates they gave individually. In a second experiment a group was asked to give estimates of how far they thought the light moved, then they were asked to give individual estimates and these were very close to the group estimate.

Evaluation and discussion

Asch argued however that this study did not demonstrate conformity as the agreement of judgments found in Sherif's study could probably be explained by the ambiguity of the situation (they weren't sure how to answer). Asch (1951) exposed participants to pressure using a simple, unambiguous task with no doubt about the correct answer.

Participants were shown a pair of cards, one with a 'standard' line drawn on it, the other illustrating three 'comparison' lines of different lengths. Participants had to choose which of the comparison lines was the same
length as the standard line. Unknown to the naive participants, they were seated at a table with groups of 7-9 accomplices of the experimenter. The accomplices unanimously gave incorrect answers on 12 critical trials out of the 18. The naive participants were always last but one to state their answers. Results were;

- The rate of conformity was 32%
- 74% conformed at least once.
- However, 25% never conformed

During the debriefing after the experiment Asch asked the participants how they felt. All reported experiencing some degree of self doubt but agreed with the confederate because they did not want to be appear to be against the group. Some argue that this could also be explained in terms of the "need to belong" – the need to be part of the group is stronger than the desire to give (Crane, p.120)

Critics of Asch have suggested that his research lacks ecological validity. How often are we faced with making a judgment like the one he used where the answer is plain to see ? Asch replied that he wanted to investigate a situation where the participants could be in no doubt what the correct answer was. In so doing he could explore the true limits of social influence.

Asch's work raises ethical issues. His participants did not provide fully informed consent because they were misled about key aspects of the experimental procedure (eg. presence of confederates). In addition, they were put in an embarrassing and difficult position. Evidence that participants in Asch-type situations are highly emotional was obtained by Bogdonoff et al (1961) who found that participants in the Asch situation had greatly increased levels of autonomic arousal. This finding also suggests that they were in a conflict situation, finding it hard to decide whether to report what they saw or to conform to the opinion of others.

Some critics thought the high levels of conformity found by Asch were a reflection of American, 1950's culture and tell us more about the historical and cultural climate of the USA in the 1950's than then they do about the phenomena of conformity. In the 1950's America was very conservative, involved in an anti-communist witch-hunt (which became known as Mccarthyism) against anyone who was thought to hold sympathetic left-wing views (Cardwell et al, p. 112). Conformity to American values was expected. Support for this comes from studies in the 1970s and 1980s that show lower conformity rates (e.g. Perrin & Spencer ,1981).

 Perrin & Spenser suggested that the Asch effect was a "child of its time". They carried out an exact replication of the original Asch experiment using engineering, mathematics and chemistry students as subjects. The results were clear-cut: on only one out of 396 trials did an observer join the erroneous majority. They argue that a cultural change has taken place in the value placed on conformity and obedience and in the position of students. In America in the 1950s students were unobtrusive members of society whereas now they occupy a free questioning role.

 However one problem in comparing these studies is that sometimes very different types of participants are used. Perrin & Spencer used science and engineering students who might be expected to be more independent by training when it came to making perceptual judgments

12. Discuss factors influencing conformity
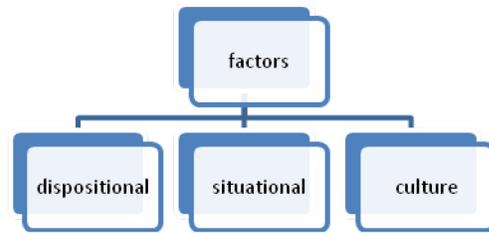
Hogg and Vaughan (2008) suggest that studies by several investigators have identified several dispositional characteristics associated with increased conformity:

- low self-esteem - subjects with high self-esteem conform less than those with low self-esteem, on the Crutchfield procedure (Stang 1973
- high need for social support and approval
- high anxietyfeelings of low status in the group.

While acknowledging the role of individual differences, most social psychologists emphasize the situational factors surrounding conformity.

1.   Group size of the majority

Asch found that group size influenced whether subjects conformed. The bigger the majority group (no of confederates) the more people conformed, **but only up to a certain point**. When the majority consisted of only 2 people , conformity responses dropped to 14% of their total judgements (Cardwell, p. 111).

Optimum conformity effects (32%) were found with a majority of 3. Increasing the size of the majority beyond 3 did not increase the levels of conformity found. Brown and Byrne (1997) suggest that people might suspect collusion if the majority rises beyond 3 or 4.

According to Hogg & Vaughan (1995) the most robust finding is that conformity reaches its full extent with 3-5 person majority, with additional members having little effect.

2. Lack of group unanimity / presence of an ally

As conformity drops off with 5 members or more, it may be that it's the unanimity of the group (the confederates all agree with each other) which is more important than the size of the group.

In another variation of the original experiment Asch broke up the unanimity (total agreement) of the group by introduced a dissenting confederate.   Asch (1951) found that even the presence of just one confederate that goes against the majority choice can reduce conformity as much as 80%.

This was supported in a study by Allen & Levine (1975). In their version of the experiment they introduced a dissenting (disagreeing) confederate wearing thick-rimmed glasses – thus suggesting he was slightly visually impaired. Even with this seemingly incompetent dissenter conformity dropped from 97% to 64%. Clearly the presence of an ally decreases conformity.

3. Culture

The influence of culture on conformity can be seen in two ways - firstly, across different cultures and secondly within a culture at different periods in history.

a)   Across cultures (individualist and collectivist)

Bond & Smith Meta-analysis of Conformity Studies	
Country and ranking	Number of studies
1.Fiji	2
2.Hong Kong	1
3.Zimbabwe, Ghana, DR Congo	3
6. Brazil	3
7.Japan	5
8. Canada	1
9.Kuwait, Lebanon	2
11. USA	18
12. Belgium	4
13. Germany	1
14. UK	10
15. Netherlands	1

It seems plausible to predict that people from individualist cultures (eg. North America and Western Europe) will conform less than people from collectivist cultures (eg. Asia). Individualism implies a strong personal identity based on one's unique features (and independent self) whereas collectivism implies commonality and interconnections with others (an interdependent self). Also, compared to people in individualist cultures people in collectivist cultures are more concerned about their relationships with others, value tradition more highly, and define themselves more in terms of their social roles. All these factors should increase conformity in collectivist cultures compared to individualist cultures.

Smith & Bond (1996) found support for this when they conducted a meta-analysis of 133 conformity studies across 17 different countries. The meta-analysis showed that more conformity was obtained in collectivistic countries like the Fiji Islands, Hong Kong and Brazil than in individualistic countries like the USA, the UK or France.

Evaluation

A meta-analysis by Oyserman, Coon and Kemmelmeier (2002) showed that core aspects of individualist beliefs are personal independence and uniqueness thus perhaps explaining the differences in conformity levels above between individualist and collectivist cultures.

However it should not be concluded from this discussion that members of collectivist societies always conform to group views. The level of conformity may depends on the exact nature of the group. Thus, collectivists may be more likely to conform to members of a group they are tied to (e.g. family, classmates, fellow workers) than they are to groups to which they are not attached. For example Williams and Sogon (1984) found significantly higher levels of conformity among Japanese groups who already knew one another than among groups lacking pre-acquaintance.

b) Across time periods

Another way to see the influence of culture is in its time frame. Culture changes over time. Research has shown that conformity levels have dropped since WWII. It may have been particularly high in the 1950's against a backdrop of conservative, conformist, anti-communist, paranoid middle-class America.

Larsen conducted three replications of the Asch experiment and interpreted the different levels of conformity as reflecting socio-political changes in American society. The more questioning attitude of Vietnam war era explained the lower levels of conformity found in 1974, whereas the decline of student activism explained the rise of conformity levels by 1979. In 1988 conformity had declined again and again it was argued this reflected a general increase in student activism and protest against a number of social issues.

As mentioned earlier Perrin & Spenser (1980) carried out an exact replication of the original Asch experiment using engineering, mathematics and chemistry students as subjects. The results were clear-cut: on only one out of 396 trials did an observer join the erroneous majority. They argue that a cultural change has taken place in the value placed on conformity and obedience and in the position of students.

However one problem in comparing these studies is that sometimes very different types of participants are used. Perrin & Spencer used science and engineering students who might be expected to be more independent by training when it came to making perceptual judgments

13. Define the terms 'culture' and 'cultural norms'

Culture is a complex concept that is used in many ways.

Some definitions are;
" a dynamic system of rules, explicit and implicit, established by groups in order to ensure their survival, involving attitudes, values, beliefs, norms and behaviours" (Matsumoto, 2004)

Hofstede describes culture as like mental software – that is, cultural schemas that have been internalized so that they influence thinking, emotions, and behavior. The mental software is shared by members of a socio-cultural group, and is learned through the daily interactions of members of the group (Crane, p.124)

Points about culture;

• **Levels of Culture** Two levels of culture may be distinguished: 1) the surface culture, which changes at a relatively rapid rate, including popular music and entertainment, clothing and hair styles and can be externally influenced and 2) the deep culture, which is relatively slow to change, including attitudes toward life, religious and philosophical beliefs, and values in human relationships. Thus clearer boundaries between cultures may be seen at the deep culture level.

Objective and subjective aspects
Culture can be broken into objective aspects, which are tangible manifestations such as food, religious buildings , rituals and grave sites which anthropologists study. Psychologists are focus on subjective aspects such as norms, beliefs, attitudes and values.

Culture is multi-layered
Culture is often associated with 'national cultures', but within any culture there are sub-cultures with ethnic, linguistic or religious differences , there are class cultures, gender cultures, institutional cultures and even counter-cultures

Variation and generalization
Kuschel warns against using culture as an explanation for behavior. Instead descriptions of cultural factors may lead to specific kinds of behavior and it is better to look at these. If culture is used simply as an explanation of behavior it will lead to circular arguments. We should also be careful about generalizing certain behaviors and beliefs of a culture as there is considerable variation and individual differences within a culture (Crane, p. 124)

Culture is dynamic
Culture is not static. It is constantly changing and responding to shifting environments and circumstances. Except for a very few isolated communities, all cultures are exposed to external influences. While external influences have always existed the rate at which cultures are exposed to external influences today is greater than ever before.

Cultural Norms
Cultural Norms are behavior patterns that are typical of specific groups. They are often passed down from generation to generation through social learning by the group's gatekeepers – parents, religious leaders and peers (Crane, p.125)

14. Examine the role of two cultural dimensions on behaviour

example exam approach - In this answer I will examine the role of individualism and collectivism on conformity. I will also examine the role of long – term v short term orientation on patience and perseverance.

Cultural dimensions

In some of the largest studies ever carried out into culture, Hofstede (between 1967 and 1973) asked over 100,000 employees in 50 countries of the multinational company IBM to fill in surveys about morale in the workplace. He then carried out a content analysis and found that over half of the variance between countries was accounted for by five dimensions.

Dimension	Description	High	Low
Power distance	Refers to distribution of power, wealth and status	Readily accepts inequalities in status, power or wealth	Does not accept or emphasize inequalities in status, power or wealth
Individualism V Collectivism	Refers to interpersonal relationships	Groups relations and connections are weak (individualism)	Strong connections with other people (collectivism)
Masculinity /Femininity	Refers to reinforcement of traditional gender role	Males dominate most areas of life	Equality between males and females
Uncertainty Avoidance	Refers to a society's tolerance for doubt and the unknown	Strict rule-orientated society with high levels of control	Encourages variety and experimentation.
Long v Short-Term Orientation	Refers to the promotion of a Confucian set of ethics	Focus on thrift, perseverance and long term goals.	Focus on instant results

1. The role of Individualism / collectivism on conformity
(repeated from sheet on 'factors affecting conformity)

Bond & Smith Meta-analysis of Conformity Studies	
Country and ranking	Number of studies
1.Fiji	2
2.Hong Kong	1
3.Zimbabwe, Ghana, DR Congo	3
6. Brazil	3
7.Japan	5
8. Canada	1
9.Kuwait, Lebanon	2
11. USA	18
12. Belgium	4
13. Germany	1
14. UK	10

Research has shown that people from individualist cultures (eg. North America and Western Europe) will conform less than people from collectivist cultures (eg. Asia).

Individualism implies a strong personal identity based on an independent self) whereas collectivism implies commonality and interconnections with others (an interdependent self). Also, compared to people in individualist cultures people in collectivist cultures are more concerned about their relationships with others, value tradition more highly, and define themselves more in terms of their social roles. All these factors should increase conformity in collectivist cultures compared to individualist cultures.

Smith & Bond (1996) found support for this when they conducted a meta-analysis of 133 conformity studies across 17 different countries. The meta-analysis showed that more conformity was obtained in collectivistic countries like the Fiji Islands, Hong Kong and Brazil than in individualistic countries like the USA, the UK or France.

Evaluation

However it should not be concluded from this discussion that members of collectivist societies
always conform to group views. The level of conformity may depends on the exact nature of the group. Thus, collectivists may be more likely to conform to members of a group they are tied to (e.g. family, classmates, fellow workers) than they are to groups to which they are not attached.

Consistent with this analysis, Williams and Sogon (1984) found significantly higher levels of conformity among Japanese groups who already knew one another than among groups lacking pre-acquaintance. Takano & Sogano found less conformity (similar to American samples) amongst informal sports clubs (doukoukai) than formal sports clubs (taikukai) Such research shows we should not make broad generalizations about one's collectivism or individualism. Broad generalizations can turn into stereotypes (Jamison –Brooks, p. 182)

2. The role of long term / short term orientation on patience and perseverence

 In 2001, Hofstede proposed a classification of cultures based on their time orientation. In the mid-80s, Bond asked a number of Chinese social scientists to create a list of what Chinese people viewed as their basic values (Hofstede and Bond, 1988). A questionnaire, based on this list, was then administered to people in 23 countries. The outcome of this project was the emergence of a fifth cultural dimension, not related to the other four originally identified by Hofstede. The additional dimension was called Confucian dynamism because it reflected Confucius's ideas about the importance of perseverance, patience, social hierarchy, thrift and having a sense of shame. The new dimension was later renamed long-term vs short-time orientation.

Long-term orientation.	Short-time orientation.
Long term goals and perseverance	Short term goals, quick results
Thrift (saving money)	Spend culture
High regard for social order	High regard for social obligations (greetings, formalities, favours, gifts etc) and business traditions
Sense of shame / Collective face saving	Individual face saving

Cultures
scoring high on long-term orientation subscribes to the values of long-term commitments and respect for long-standing traditions (eg. Confucious). This may explain the strong work ethic in these cultures, where long-term rewards come as a result of today's hard work

 In contrast Cultures with a short-term view are not as concerned with past traditions. They are rather impatient, are present-oriented and strive for immediate results. The study below provides support for this.

Seven of the ten highest ranking countries on Hofstede's time orientation dimension were in Asia. Western countries tended to be more short-term oriented.

Chen (2005)

In eastern countries, characterized by a long-time orientation, patience is valued more than in Western countries. Based on this, Chen et al. predicted that part of the Western mentality is to place a higher value on immediate consumption than an eastern mentality.

They investigated this idea in an experimental study using 147 Singaporean 'bicultural participants'. This technique uses participants who have been exposed extensively to two different cultures (in this case, Singaporean and American) and assumes that both can affect behaviour depending on which is more actively represented in the mind at any particular moment.

Chen et al. selectively activated one or the other of the two cultures by presenting half the participants with a collage of easily recognizable photos which were relevant to Singaporean culture and the other half with a collage of photos relevant to US culture. Impatience was tested by having the participants perform an online shopping scenario in order to purchase a novel. The book could be delivered either within four working days for a standard fee or next day for an additional charge. The extra money participants were willing to pay for faster delivery of the book was used as a measure of impatience.

 Chen et al. found that US-primed participants valued immediate consumption more than the Singaporean-primed participants.

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Evaluation of Hofstede's cultural dimensions

- Although Hofstede conceptualized individualism – collectivism as one bipolar dimension of culture, more recent research suggests the dimensions are more continuous and may even overlap. Triandis et al (1993) found that under some circumstances people may exhibit collectivist cultural traits whilst another time exhibit more individualist cultural traits. For example whilst individualism is the most dominant cultural value in American society at times Americans can exhibit collectivist values, such as was demonstrated after the 9/11 attacks
- Hofstede cautioned against the ecological fallacy when using these dimensions. The ecological fallacy is the mistaken belief that if two cultures differ across dimensions it should not be assumed that two individuals from those cultures would also differ (Cardwell, p. 690).
- The techniques used to gather these data (a series of questionnaires) and the dimensions proposed to explain the results demonstrate a cultural bias specific to western scientific values (Cardwell, p. 690)
- Finally, such dimensions are not the only ways to view cultural differences. There are other ways such as in non-verbal communication.

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15. Explain 'emic' and 'etic' concepts (using two examples)

Cross-cultural psychology is a branch of psychology that looks at how cultural factors influence human behavior. Cross-cultural research helps to test the validity of many psychological truths and principles previously thought to be true for everyone It is quite common for cross-cultural psychologists to take one of two possible approaches – etic or emic.

Etic approach	Emic approach
Emphasizes similarities between cultures	Emphasizes differences between cultures
Considers behaviour patterns invariant and universal	Considers behaviour patterns unique and specific to a culture
Brings an outside perspective	Seeks an inside perspective
eg. female circumsion seen as a barbaric practice that subjugates and traumatises women	eg. female circumsion seen as a traditional practice which promotes revered values such as women's chastity

Emic approaches have challenged psychologists to re-examine their ideas of 'truth' with regard to culture. In most cases, truth may be relative, based on the culture in which one is raised. In which case it is important for psychologists to recognize these cultural variations in order to best understand members of other cultural groups.

Gender Development in New Guinea

An example of research in cross-cultural psychology is Mead's (1935) study of gender development in three different tribes in New Guinea.

- She found that the Mundugumor tribe - exhibited 'masculine' characteristics as both men and women were aggressive. The Arapesh tribe exhibited' feminine ' traits as both men and women were emotional and nonaggressive. Amongst the Tchambuli people – she found a gender reversal. The men ran the household whilst the women ran the village.

- Such ethnographic studies illustrate the role of culture on behavior. Mead argued that gender roles are culturally determined rather than biologically determined by innate sex differences as believed in the West, noting that behavior regarded as masculine in one culture could be considered feminine in another.

- This study may also demonstrate an imposed etic in research. An imposed etic is a technique or a theory which is rooted within the personal culture of the researcher and is then used to study other cultures. Mead's study could be considered an imposed etic in that she was using Western notions of masculinity/femity to document gender roles in non-western cultures. To describe the Arapesh people as 'feminine' attaches a western construct to a set of behaviours which may be unique to the Arapesh people

Other examples you could use;

Culture bound syndromes
Questionnaires such as Marcia's Identity Status Interview (1955) on adolescent stages
Ainsworth Strange Situation and cultural differences found by Ijzendoorn & Koonenberg

option 1

abnormal psychology

1.To what extent do biological, cognitive and socio-cultural factors influence abnormal behaviour?

The easiest approach is to look at theories of a specific disorder and discuss to what extent each of the above factors help explain that disorder – this is an example for Bulimia

Biological factors	Cognitive factors	Socio-cultural factors
Kendel et al (1991) gave 2,163 female twins personal, structured, and psychiatric interviews about Bulimia and risk factors for Bulimia. Results showed that in identical (MZ) twins, concordance was 23% whilst in non-identical (DZ) twins, the concordance rate was 8.7%	Cognitive models of eating disorders, such as Fairburn's (1997) model, proposes that Bulimia is a result of the tendency to judge self-worth in terms of weight or shape. For some people, their concerns about weight reflect a wider lack of self-esteem and a vulnerability to cultural messages about body weight.	Jaegar et al (1993) sampled 1751 medical and nursing students across 12 countries. Self report method was used to obtain data on body dissatisfaction, self esteem and dieting behavior. Body Mass Index (BMI) which takes account of height and weight was also measures. A series of 10 body silhouettes, designed to be as culture-free as possible were shown to the participants to assess body dissatisfaction. Jaegar found that body dissatisfaction was highest in those countries with high levels of Bulimia. This demonstrates that body dissatisfaction is a better predictor of Bulimia than self esteem or weight.
However the concordance rate was quite low in the study, suggesting there while there are some genetic risk factors involved in bulimia nervosa there are also important non-genetic risk factors. Kendler identified other risk factors relating to age, childhood experiences, dieting and psychological factors such as low self esteem. This shows that bulimia is more likely a result of biological, cognitive and social risk factors	Research has shown that people with bulimia do have strong cognitive biases in their thinking, but it remains unclear if these biases exist before the onset of the eating disorder, playing a part in their development or whether they only develop afterwards, in which they cannot be a causal factor.	Such a study supports a socio-cultural explanation of eating disorders. Body dissatisfaction can only be a result of idealized body images portrayed in the media. Western countries are more exposed to these images, which may explain why countries in the process of westernization are experiencing increasing numbers of Bulimia. However it is important to note that this was a natural experiment, in which the IV (culture) was not under the control of the experimenter. Therefore we cannot conclude that culture causes differences in body dissatisfaction and the subsequent risk for bulimia

Conclusion – Disorders such as Bulimia are probably best viewed from a bio-psycho-social model in which mental disorders are seen as caused by the interaction of the above three factors, each of which contributes in varying degrees to particular problems in particular people.

3. Evaluate psychological research (that is, theories and/or studies) relevant to the study of abnormal behaviour.

example exam approach - In this answer I will evaluate research into biological, cognitive and socio-cultural explanations of depression.

| Research – theories of depression	Evaluative points
Biological theories	
McGuffin et al (1996) studied 177 MZ twins with depression. The concordance rate was 46% for MZ, and 20% for DZ twins. Wender et al (1986) studied the biological relatives of adopted people who had been hopsitalised for severe depression. There was a much higher incidence of severe depression among these relatives that among those relatives of a non-depressed control group.	The concordance rate is not particularly high suggesting strong psychological/ environmental factors. Even with MZ twin raised apart it is impossible to fully separate the effects of the environment. Environmental similarities may occur even when genetic relatives do not live together. Family groups tend to share certain characteristic such as social class and lifestyle. Furthermore the correlation only allows us to infer genetic causation of depression.
Delgado & Moreno (2000) found abnormal levels of serotonin and noradrenaline in patients suffering from major depression. Furthermore in an earlier study Delgado et al (1994) gave depressed patients who were receiving anti-depressant medication a special diet that lowered their tryptophan levels - a precursor of serotonin. Most patients experience a return of their depressive symptoms, which disappeared when their diet returned to normal	Since it is not possible measure brain serotonin levels in living humans there is no way to test Delgado's theory of abnormal levels. This is supported by Lacasse & Leo (2005) who argue that contemporary neuroscience research has failed to provide evidence that depression is caused by a single neurotransmitter deficiency. It may be the case that depression causes changes in neurotransmitters – the direction of cause and effect is uncertain.
Cognitive theories	
According to Beck (1976) people who develop depression have cognitive distortions which centre around the cognitive triad (negative schema) acquired early in childhood. This consists of negative thoughts about themselves, the world and the future. Depressed patients typically regard themselves as helpless, worthless and inadequate.	Cognitive theories easily lend themselves to testing and research has confirmed possible links between cognitions and depression. Most people who suffer from depression do exhibit irrational beliefs and cognitive biases such as self-criticism. Alloy et al (1999) followed the thinking styles of young Americans in their early 20's for 6 year.s Their thinking style was tested and they were placed in either the 'positive thinking group' or 'negative thinking group'. After 6 years the researchers found that only 1% of the positive group developed depression compared to 17% of the 'negative' group. These results indicate there may be a link between cognitive style and development of depression. However such a study may suffer from demand characteristics. The results are also correlational. It is important to remember that the precise role of cognitive processes is yet to be determined. The maladaptive cognitions seen in depressed people may be a consequence rather than a cause of depression
Socio-cultural	
Society creates a number of risk factors including life stressors such as divorce, redundancy and death of a loved one, deprivation, urbanization, prejudice and discrimination, lack of support and social norms and expectations.	Brown & Harris (1978) studied working-class women who had recently received treatment for depression. They were interviewed about possible stressful life events and results showed that 82% of women interviewed had recently experienced at least one severe life event or major difficulty. However interviews suffer from researcher and participant bias. However although social factors may trigger depression, they cannot alone explain why some stressed women develop depression and others don't. The stress – diathesis model better explains depression as an interaction of genetic vulnerability and stressful experiences.

3. Examine the concepts of normality and abnormality

The presence of a mental disorder may be considered a deviation from mental health norms and hence the study of mental disorders is often known as abnormal psychology

Normal" and "abnormal," as applied to human behavior, are relative terms. Many people use these classifications subjectively and carelessly, often in a judgmental manner, to suggest good or bad behavior. As defined in the dictionary, their accurate use would seem easy enough: normal--conforming to a typical pattern; abnormal-deviating from a norm. The trouble lies in the word *norm.* Whose norm? For what age person? At what period of history ? In which culture ?

The definition of the word abnormal is simple enough but applying this to psychology poses a complex problem: what is normal? Whose norm? For what age? For what culture? The concept of abnormality is imprecise and difficult to define. Examples of abnormality can take many different forms and involve different features, so that, what at first sight seem quite reasonable definitions, turns out to be quite problematical. There are several different ways in which it is possible to define 'abnormal' as opposed to our ideas of what is 'normal'

1.Deviation from statistical norms
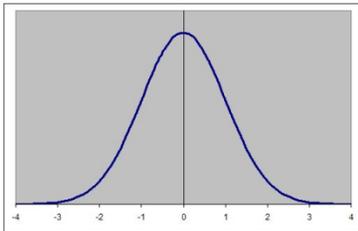
One way is the statistical approach which is based on the premise that abnormal behaviour is statistically rare. In some cases it is possible to gather data in a numeric form and derive a **mean** average value. We can then say that the majority of values which are nearest to the mean are "normal", and the minority of values farthest from the mean are "abnormal".

For example, if the average height of a set of people is five foot eight, with most values falling in the range four feet to six foot six, then a height of less than three foot or more than eight foot would or probably be considered "abnormal". As another example, anxiety can be assessed using Spielberger's State-Trait Anxiety Inventory. The mean score for trait anxiety is 40 and people who achieve over 55 are seen as statistically rare as only 1 in 50 score that high. Therefore those with high scores are seen as deviant from the greater majority of the population.

Evaluation

The statistical approach helps to address what is meant by normal in a statistical context. It helps us make cut – off points in terms of diagnosis but it still does not helps us define the term. There are many people who have high levels of anxiety, but would still not be categorised as clinically abnormal — it is also equally true that people with very low scores on the anxiety scale are also statistically abnormal!

The decision of where to start the "abnormal" classification is arbitrary. Who decides what is statistically rare and how do they decide ? For example, if an IQ of 70 is the cut-off point, how can we justify saying someone with 69 is abnormal, and someone with 70 normal ?

An important consideration of statistically "abnormal" values is that "abnormal" doesn't tell us about the desirability of the deviation. For example, obesity is a statistically normal but not associated with healthy or desirable. Conversely high IQ is statistically abnormal, but may well be regarded as highly desirable.

2. Deviation from social norms

Every culture has certain standards for acceptable behaviour, or socially acceptable norms. Norms are expected ways of behaving in a society according to the majority and those members of a society who do not think and behave like everyone else break these norms so are often defined as abnormal. Examples of norms are appropriate dress, student-teacher relationships, behaviour on public transport etc. Most members of society are aware of those social norms and adjust their behaviour accordingly.

Evaluation

The most obvious problem with defining abnormality using social norms is that there is no universal agreement over social norms. Social norms are culturally specific - they can differ significantly from one generation to the next and between different ethnic, regional and socio-economic groups. In some societies, such as the Zulu for example, hallucinations and screaming in the street are regarded as normal behavior.

The Doba (Papua New Guinea) see illness as due to the loss of soul, whilst the Yoruba (Nigeria) believe in a disease called "maagua' which afflicts men who have affairs with other men's wives.

Social norms also exist within a time frame, and therefore change over time. Ladrine (1991) has identified a syndrome known as '*drapetomania*' which used to be an acknowledged disorder in America in the eighteenth century. In times of slavery, this medical diagnosis could be applied to slaves who tried to run away. Such slaves were thought to be "mad" or "crazy" for trying to escape.

Homosexuality was considered an offence until 1967 and was classified as a psychological disorder from the 1920s –1970s. Many gay people accepted society's and psychiatrists' view of themselves as 'abnormal' and sought treatments such as 'aversion therapy'. Compare this with parts of the Melanesia (Pacific Islands) where adolescents are encouraged to have relationships with older men (Humphreys, 1997).

Social norms can also depend on the situation or context we find ourselves in. Is it normal to eat parts of a dead body ? In 1972 a rugby team who survived a plane crash in the snow-capped Andes of South America found themselves without food and in sub-freezing temperatures for 72 days. In order to survive they ate the bodies of those who had died in the crash.

3. Deviation from Ideal Mental Health

In this context, "normal" can be taken to mean "mentally healthy", while "abnormal" describes an undesireable state which is somehow deficient from "mental health". This approach therefore attempts to describe the characteristics which constitute "ideal" mental health.

This approach is characteristic of humanistic psychologists such as Maslow, who defined his heirarchy of needs (e.g. physiological, safety, love, esteem, self-fulfillment) as a means of assessing whereabouts an individual was on their path to **self-actualisation**, which he regarded as the ideal state.

Jahoda (1958) defined six criteria by which mental health could be measured:

- Self attitude
- Personal growth
- Integration
- Autonomy
- Perception of reality
- Environmental mastery

According to this approach, the more of these criteria are satisfied, the healthier the individual is.

Evaluation

An advantage of this type of approach is focuses on a positive approach to the problems. On the other hand, like Maslow's criteria, very few people are likely to achieve all six of Jahoda's objectives, and it is also hard to measure the extent to which an individual misses or achieves these criteria.

However, a problem with this approach is that very few people would be considered "normal" by this measure, because few people achieve self-actualisation as Maslow defines it. Another criticism of Jahoda is that some of the criteria might be seen to be ethnocentric: for example, autonomy is seen in some cultures as an undesirable trait.

An alternative view: Mental illness is a social construction

Since the 1960's it has been argued by anti-psychiatrists that the entire notion of abnormality or mental disorder is merely a social construction used by society. Notable anti-psychiatrists were Michel Foucault, R.D. Laing, Thomas Szasz and Franco Basaglia. Some observations made are;

- Mental illness is a social construct created by doctors. An illness must be an objectively demonstrable biological pathology, but psychiatric disorders are not.
- The criteria for mental illness is vague, subjective and open to misinterpretation criteria
- The medical profession uses various labels eg. depressed, schizophrenic to exclude those whose behaviour fails to conform to society's norms
- Labels and consequently treatment can be used as a form of social control and represent an abuse of power
- Diagnosis raises issues of medical and ethical integrity because of financial and professional links with pharmaceutical companies and insurance companies

4. Discuss the reliability & validity of diagnosis

Mental Health Professionals commonly use classification systems such as the DSM IV when working with patients in order to better understand their illness and potential treatment. However questions have been raised about the reliability and validity of diagnostic systems such as the DSM.

Reliability

One of the most important characteristics of science is replication - the ability to reproduce results obtained from a study. Reliability in this case refers to consistency of diagnosis. There are two types of reliability:

 I**nter-rater-reliability:** two different psychiatrists using the same classification system must independently give the same diagnosis based on the same symptoms presented by the same patient.

Test-retest refers to the same patient being given the same diagnosis at different times by the same psychiatrist.

Research generally shows that some that some disorders are more reliability diagnosed than others.

Study	Reliability findings
Schmidt and Fonda (1956)	Asked two psychiatrists to diagnose independently 426 patients. There was great variety in the diagnosis between the psychiatrists, especially for patients with schizophrenia.
Beck et al (1962	Found two psychiatrists agreeing independently on diagnosis in less than 50% of cases
Cooper et al (1972)	Conducted the US-UK diagnostic project, where American and British psychiatrists watched clinical interviews on video, and were asked to make a diagnosis. The results showed that American psychiatrists diagnosed schizophrenia twice as often, while British psychiatrists diagnosed mania and depression twice as often. This shows how diagnosis can be very unreliable, and how cultural differences can affect reliability
Lipton and Simon (1985)	Demonstrated that 75% of 131 cases were given different diagnoses by clinicians in one American hospital.
DiNardo et al (1993)	Studied the reliability of the DSM III for anxiety-seeking disorders. Two clinicians separately diagnosed 267 individual seeking treatment for anxiety and sress disorders. They found high reliability for OCD (.80) but very low reliability for assessing generalized anxiety disorder (.57), mainly due to problems with assessing how excessive a person's worries are.
Kendler (1974)	Kendall (1974) studied 1,913 patients admitted to hospital since 1964, and then readmitted after 1969. The research found that schizophrenia was more often rediagnosed as a form of depression than the other way around. There was a 70% stability in the diagnosis of depression, schizophrenia, dementia and alcoholism but less than 50& stability in the diagnosis of anxiety states, paranoid states and personality disorders.

Explanations for low reliability

There are many reasons for this. Patients with the same disorder may differ others in the symptoms they display; they may also typically possess some rather than all the symptoms of the diagnostic category. Thus, the fit between the patient's symptoms and those forming the syndrome of the diagnostic category can be relatively poor. This makes some disorders hard to diagnose. It is also possible that patients are affected by demand characteristics and give different psychiatrists different or subjective information which makes diagnosis unreliable. The method of assessment may be called into question – unstructured interviews are considered less reliable than structured interviews, but structured interviews are rarely used. Sometimes insufficient evidence is gathered. Finally, once a patient has been given a diagnosis, there is a tendency to see their general behaviour as a symptom of their illness — a *self-fulfilling prophecy*. This has the effect of making the diagnosis appear more reliable than it actually is.

Some people have argued that the DSM is in fact reliable, Meehl (1977) said that with enough information and by sticking to thorough descriptions and major categories, diagnosis could be completely reliable. It is difficult to categorically whether the DSM IV is reliable or unreliable – some diagnostic categories are more reliable than others Sartorius (1995) reported that interrater reliability was high for schizophrenia and substance abuse but less good for personality disorders. It is also relatively high for bulimia nervosa and low for panic disorders. There have undoubtedly been improvements in reliability since the publication of DSM III (1980), aided by the use of 'decision trees' (flow charts) and computer programmes that lead the psychiatrist through the tree. It also improved diagnostic objectivity by adding prototypes or decision trees outlining defining features of disorders, which lead clinicians through sets of questions regarding the presence or absence of symptoms

Validity

Validity is quite a complex idea but in general validity refers to the accuracy of diagnosis, and more specifically to the ability of a test to measure what it was designed to measure. It is much more difficult to assess than reliability because for most disorders there's no absolute standard against which the diagnosis can be compared. There is no guarantee that the patient has received the correct diagnosis.

Using the DSM III criteria Tyrer et al (1988) studied the diagnosis of anxiety disorders in 201 patients. He found overlap in terms of symptoms between phobias, general anxiety disorder, OCD, depression, somatoform disorders, some personality disorders and some eating disorders. However in defense of classification systems, Clare (1980) points out that he diagnosis is not always clear cut and has similar problems (Brewer, p.20)

Rosenham (1973) conducted an experiment to illustrate the poor validity of the diagnostic classification system for mental disorders. He used 8 sane people, who said they could hear voices (pseudo-patients), to try and get admitted to a mental institution, and when in the hospital they should stop simulating their symptoms and respond normally to instructions. Their task was to seek release by convincing the staff they were perfectly sane. The results showed that the patients sanity was never detected by the staff, only by other patients, and they were kept in the hospital for an average of 19 days. All except 1 participant was diagnosed as 'schizophrenic in remission', supporting they were never thought of as

sane by the staff. Participants noted that even normal behaviour become distorted as 'schizophrenic', as waiting outside the cafeteria was seen by a member of staff as 'oral acquisitive nature of the syndrome'.

If clinicians are diagnosing on the basis of one symptom, and cannot distinquish between the 'sane' and 'insane' – and inaccurately or unreliably diagnosing patients then the diagnosis lacks validity.

This could illustrate how the validity of the classification system used for diagnosis is low. It could however be argued that the clinicians are at fault and not the method of diagnosis (DSM)

The very fact that every single pseudo-patient gained entry casts a worrying doubt over the validity of these classifications. How is it that a qualified doctor using standard guidelines cannot detect someone who is merely presenting them with false symptoms?

Rosenhan published his findings in *Science*, criticising the validity of psychiatric diagnosis and the disempowering and demeaning nature of patient care experienced by the associates in the study. Rosenhan's study understandably upset a great number of mental health professionals who suggested that they themselves view their patients objectively and took offense at the implication that mental health professionals perceive their patients according to the needs and norms of the institution. Many defended psychiatry, arguing that as psychiatric diagnosis relies largely on the patient's report of their experiences, faking their presence no more demonstrates problems with psychiatric diagnosis than lying about other medical symptoms.

Important to bear in mind is the fact that at the time of the study it was the DSM-II that was in use. In the later versions now in use, the criteria are much stricter and much more specific - very much due to studies such as these - which highlighted the inadequacies in the previous models and methods. Today, patients complaining of the same symptoms as those used in the original study would be highly unlikely to be admitted. That makes it no less interesting to wonder what would happen today if the study were to be repeated with the requisite symptoms in place...

5. Discuss cultural and ethical considerations in diagnosis

Ethical issues

1. Labelling - In the Rosenhan (1973) study the label 'schizophrenia in remission' travelled with the

pseudo-patients long after they had left the hospital. Had they applied for jobs, mortgages etc this information would have been available. Unlike a physical illness where the label of 'broken leg' is dropped once the leg has healed, mental illnesses are labels for life. Even if a patient is apparently 'cured' the label '(disorder) in remission' still remains. Some consequences of labeling are;

Self-fulfilling prophecy	Stigma & Prejudice
According to his theory someone acquiring the stigma of psychiatric diagnosis or label will be treated as a mentally ill person. Patients may begin to act as they think they are expected to act. They may internalise the role of 'mentally ill patient' and this could worsen their disorder. This is known as a self-fulfilling prophecy. Doherty (1975) points out that those who reject the mental illness label tend to improve more quickly than those who accept it. Thus according to Scheff rather than the symptoms leading to the label the label can play a part in creating the symptoms (Eysenck, p. 796).	Langer & Abelson (1974) found that prejudice against those labelled with mental disorders exists. They showed a videotape of a younger man telling an older man about his job experience. If the viewers were told the man was a job applicant he was judged to be attractive and conventional looking, whereas if they were told he was a patient he was described as tight, defensive, dependent, and frightened of his own aggressive impulses (Farina et al 1980).This experiment, conducted in a naturalistic setting, illustrates stigma and prejudice towards those labelled as mentally ill. However problems highlighted by labeling theory may be less serious than Scheff and others have suggested. Gove and Fain (1973) considered patients 1 year after discharge from a mental hospital. Their descriptions of their current jobs, social relationships and outside activities were similar to their descriptions of their lives before diagnosis and hospitalization. Thus the stigma of being diagnosed as suffering from a mental disorder need not have a permanent effect on individuals life, though it undoubtedly does in some cases (Eysenck, p. 797)

2.Hospitalisation -
The **Mental Health Act** 1983 (UK) is the law under which a person can be admitted, detained and treated in hospital against their wishes. It is used in serious cases when one can be threat either to themselves or other people. Although hospitalization today is a more humane experience than the institutionalization of the mid-20th century, Rosehan's study still highlights some of the potential consequences of spending time in a psychiatric unit.

Once the pseudo-patients in Rosenhan's (1973) study were admitted to mental wards it was very difficult for them to get out; one participant took 52 days to convince staff he was well and the whole thing was an experiment. The problem is that once admitted, all behaviour is perceived as being a symptom of the illness and therefore a good reason why the patient should not be released. Other problems patients suffer are a lack of rights (powerlessness) opportunities for constructive activity, frequent verbal abuse, humiliating detentions (leading to depersonalization) and loss of contact with and inability to cope with the real, outside world.

Hospitalisation can lead to forced or unethical treatments;

Drugs	Electroconvulsive therapy	Psychosurgery
Again the film One flew over the cuckoos nest demonstrates the way in which drugs are handed out like smarties merely to keep the patients subdued. Note also in the film that the same type of drug is given to every patient with no regard for the individual's case history or symptoms; the aim is merely to drug them to quieten them. Note also that drugs do not deal with the cause of the problem, they only reduce the symptoms.	In extreme cases patients could be subject to ECT (Electro-convulsive therapy). Electric currents are passed through the brain in order to trigger a seizure (a short period of irregular brain activity), lasting about 40 seconds. It is still not entirely clear how ECT works but 3 theories are; *Neurotransmitter theory*. Shock works like antidepressant medication, changing the way brain receptors receive important mood-related chemicals, such as serotonin and dopamine and norepinephrine. *Anti-convulsant theory*. Shock-induced seizures teach the brain to resist seizures. This effort to inhibit seizures dampens abnormally active brain circuits, stabilizing mood. *Neuroendocrine theory.* The seizure causes the hypothalamus, part of the brain that regulates water balance and body temperature, to release chemicals that cause changes throughout the body. The seizure may release a neuropeptide that regulates mood (http://www.electroboy.com/electroshocktherapy.htm) ECT remains a highly controversial form of treatment. From the 1940's to the 1960's , in many large, under staffed mental institution it was simply used to make patients docile and manageable or as a punishment (Breggin 1979). Side effects include impaired language and memory as well as loss of self esteem due to not being able to remember important personal facts or perform routine tasks.	As a last result when drugs and ECT have apparently failed psychosurgery is an option. This basically involves either cutting out brain nerve fibres or burning parts of the nerves that are thought to be involved in the disorder. The most common form of psychosurgery is a prefrontal lobotomy. Such operations can leave the patient 'vegetablized' or 'numb' with a flat personality and shuffling movements. In the 1940s, U.S. physicians performed an estimated 18,000 lobotomies. It was equally popular in other countries where more than 50,000 operations were conducted during the same period. The use of classical lobotomies today as a treatment for mental disorders no longer exists.

3.**Gender bias**

Kaplan (1983),argued that "diagnostic systems, are male centered" . The authors of every edition of the DSM have been predominately male, including the membership on the more recent personality disorder work groups: 89% for DSM-III, with only one of the 9 members female . It might not be surprising to find that male members of these DSM committees have pathologized stereotypic feminine traits rather than, or more so than, stereotypic masculine traits, reflecting "masculine-biased assumptions about what behaviours are healthy and what behaviours are crazy" (Kaplan, 1983,)

Lloyd (1991) noted that women made up 4% of the prison population, but 20% of the Special Psychiatric Hospitals. Women who are aggressive, addicts or living rough are more likely to be diagnosed with anti-social personality disorder than men in the same situation.

At the same time Kaplan (1983) has argued that women are far more likely to be diagnosed with histrionic personality disorder (a pervasive pattern of extreme emotional and attention-seeking behaviour). One study by Ford & Widiger (1989) sent fictitious case histories to clinical psychologists One case described a person with anti-social personality disorder; the other case described a person with histrionic personality disorder. The subject was identified as male in some versions of each case and as female in others, although everything else was identical. Results showed that when the ASP case was labelled male most psychologists gave the correct diagnosis. However when the same case was labelled female most psychologists labelled it as histrionic rather than anti-social personality disorder. In the case of histrionic personality disorder being labelled a woman increased the likelihood of that diagnosis   (Durand & Barlow, 2003).

Cultural considerations in diagnosis

Behaviours in general and conceptions of abnormality differ between cultures and this can have a significant influence on the validity of the diagnosis of mental disorders.

1.   Culture- bound syndromes

Western science, and to a large extent Western psychology takes it as a given that mental illness is rooted in biology. This approach implies that abnormality (mental illnesses) are culture- free. *Universality* is the view that mental disorders are found in all cultures in all forms. Most of the classification systems are based on the Western view of what is abnormal and *universality.* Adopting a universal approach may lead to misdiagnosis.

A culturally relative approach to mental disorders assumes that symptoms are unique to a particular culture – these are known as culture-bound syndromes. The DSM-IV has made modest attempts to address cultural issues by referring to culture-bound syndromes in its Appendix, for example Anorexia is considered to be a western culture-bound syndrome. Other well known syndromes are Koro (China), Amok (Malaysia) and Dhat (India).

However many Western psychiatrists dispute the existence of such culture – bound syndromes, maintaining that most of these are merely variants of known syndromes and do not warrant new diagnostic criteria.

2. Cultural bias
Cultural bias in diagnosis may be a result of ignorance of or assumptions about the behaviors of people of other cultures, or racist or stereotyped attitudes towards people of other cultures.

In the UK, Black and Irish people are significantly more likely than other groups to receive a diagnosis of schizophrenia. Littlewood & Lipsedge (1997) have suggested that this is more to do with a bias in the system than a genuine vulnerability in these groups. This bias may result from a failure to understand certain behaviours such as the normalcy of hearing voices in some cultural groups, stress from social deprivation, coping strategies such as alcohol and defiant behaviours stemming from a long history of racism.

Read the following description from a British prison psychiatrist of a Jamaican patient on remand, having been arrested for arguing with the police who wrongly accused him of stealing a postal order.

'This man belongs to Rastafarian – a mystical Jamaican cult, the members of which think they are God-like. The man has ringlet hair, a straggly goatee beard and a type of turban. He appears eccentric in his appearance and very vague in answering questions. He is an irritable character and has got arrogant behaviour.'

Above is a case described by Littlewood & Lipsedge, of Calvin, a Jamaican man arrested following an argument with the police when a post office clerk believed he was cashing a stolen postal order. Shown here is an extract from the psychiatrists report on Calvin. As always in psychology we need to be aware of the limitations of case studies – we don't know how representative of Calvin's case is of the treatment of minority groups in the mental health system.

However there is further evidence to suggest that mental health professionals perceive different ethnic and cultural groups differently. Stowell-Smith and McKeown (1999) performed a discourse analysis on the psychiatrists reports on 18 black and 18 white psychopaths from a range of maximum-security institutions. Discourse analysis is associated with the social constructivist approach to psychology and involves the deconstruction of written or verbal narrative in order to reveal the hidden assumptions in people's use of language. In this case discourse analysis revealed that psychiatrists were much more likely to look at white patients' experience of trauma and at their emotional stat. Reports of black patients place much more emphasis on the danger posed by the patients. This contrast suggests that the doctors saw white psychopaths more sympathetically (Russell & Jarvis, p. 9)

3.   Cultural attitudes towards diagnosis

Diagnosis of mental health problems carries a stigma and shame in some societies, leading to low admission rates, help seeking and reporting of symptoms. This can lead to misunderstandings about the prevalence of certain disorders in certain cultures. For example depression which is common in western culture appears to be absent in Asian cultures. It is presumed that because Asian people are more likely to live within extended families and therefore have strong social support networks. However as Rack (1992) points out, Asian doctors report that depression is equally common amongst Asian, but that Asians are less likely to report emotional distress and more likely to seek support from the family (Crane, p.145)

In countries such as India, mentally ill people are considered cursed and looked down upon (Cohen, 1988). In China mental illness also carries a great stigma, and therefore the Chinese are careful to label only those whose behavior is indisputably psychotic (Crane,p.145).

A recent study in Britain (Cinnerella & Loewenthal, 1999) examined the influence of religious and cultural influences on mental disorder, with particular regard to symptoms and causes of depression and schizophrenia and the most effective strategies for tackling symptoms. A total of 52 participants   (including white Catholics, Indian Hindus, black Christians, Muslim Pakistanis and Orthodox Jews) were given in-depth interviews in their own homes. Some important cultural attitudes emerged. Although al groups saw depression as a result of life events, there was a range of wide beliefs about the origins of schizophrenia, including spiritual beliefs. Among the black Christian groups and Muslim Pakistani groups there was a belief that a diagnosis of either carried a social stigma. These two groups also believed in the power of prayer to relieve symptoms. Such findings suggest that certain communities in countries such as Britain are more reluctant than others to seek help for mental health problems (Jarvis & Russell, p.8)

4. Differences in symptomology

Research has found there are differences between cultures in the symptomology of disorders. For example Marsella (2003) argues that depression takes a primarily affective (emotional) form in individualistic cultures. In these cultures, feelings of loneliness and isolation dominate. In more collectivist cultures, somatic (physiological) symptoms are such as headaches predominate. Kleinman (1984) has argued that it is almost impossible to compare disorders such as depression cross-culturally because it may be experienced with substantially different symptoms or behaviours – for example, lower back pain (in China) or feelings of guilt and existential anxiety (in western cultures). Such differences make it difficult for clinicians to accurately diagnose and suggest treatments (Crane, p. 145)

6a.Describe symptoms and prevalence of major depression

- The word 'prevalence' of Depression usually means the estimated population of people who are managing Depression at any given time (i.e. people with Depression).

- The term 'incidence' of Depression means the annual diagnosis rate, or the number of new cases of Depression diagnosed each year (i.e. getting Depression).

Hence, these two statistics types can differ: a short disease like flu can have high annual incidence but low prevalence, but a life-long disease like diabetes has a low annual incidence but high prevalence

- o Point prevalence is the percentage of people with a disorder at one time.
- o Lifetime prevalence refers to the risk over one's life of having a disorder
- o Males and females are equally affected prior to puberty. After puberty, this disorder is twice as common in females as in males.
- o The highest rates for this disorder are in the 25- to 44-year-old age group.
- o Prevalence: The lifetime risk for is 10% to 25% for women and from 5% to 12% for men.
- o At any point in time, 5% to 9% of women and 2% to 3% of men suffer from this disorder.
- o Depression tends to be a recurrent disorder, with about 80% experiencing a subsequent episode, with an episode lasting for 3-4 months. The average number of episodes is 4

 (Crane, p.150)

symptoms	Unipolar	Bipolar
Affective (emotional)	• Sadness • Feelings of worthlessness • Feelings of apathy/hopelessness • Anhedonia (i.e., loss of pleasure or interest in activities or things)	active, powerful emotions in search of outlet need for constant excitement, involvement, companionship
Behavioural	• Social withdrawal • Neglect of personal appearance • Psychomotor retardation (i.e., lethargy; slowing of movements, responses, speech) or psychomotor agitation (i.e., restlessness) • Crying	very active – move quickly; talk loudly or rapidly
Cognitive	• Pessimism • Trouble concentrating • Thoughts/feelings of guilt/self-blame • Loss of motivation/disinterest • Recurrent thoughts of death/suicide	show poor judgement especially prone to poor (or no) planning
Physical	• Lack of energy; fatigue • Decreased or increased appetite/weight loss or gain • Sleep disturbance: Insomnia (trouble sleeping) or hypersomnia (excessive sleeping) • Disruption of menstrual cycle in women • Decline in sexual desire	high energy level – often in the presence of little or no rest

(http://www.psychnet-uk.com/dsm_iv/major_depression.htm)

6b. Describe symptoms and prevalence of one eating disorder (Bulimia)

Eating disorders are psychological problems marked by an obsession with food and weight. They have serious emotional, physical and behavioural consequences. Two broad categories of the disorder are;

▸ **Anorexia nervosa** (literally: nervous loss of appetite).

▸ **Bulimia nervosa** (periodic episodes of 'binge' eating followed by 'purging' or strict dieting).

Until the past decade, these were viewed as separate disorders with distinct characteristics, causes and treatments, but today clinicians have come to appreciate that the similarities between the two conditions are as important as the differences. Bulimia is thought to be two to three times more common than anorexia, but is not generally as physically dangerous. However some sufferers of anorexia go on to develop bulimia and vice versa. The incidence of anorexia and bulimia nervosa may be increasing, although greater medical and public awareness of eating disorders has probably resulted in increased reporting of cases.

Symptoms

Bulimia is characterised by a cycle of bingeing and starving, and binging and purging. Many people with bulimia feel unattractive, have a fear of becoming fat and consider themselves to be heavier than they actually are.Their attempts to avoid being overweight are more chaotic than in anorexia. The amount of food consumed in bunges can be vast; up to and beyond 5,000 calories in any one time. Food isn't eaten for pleasure, and in fact it is usually eaten secretly, rapidly and barely tasted. Episodes are usually precede by periods of considerable physical and psychological tension, and eating serves to reduce this tension. While bingeing the individual may feel out of control and episodes are typically followed by feelings of guilt, self blame and depression. The weight of people with bulimia usually remains within the normal range although it may fluctuate considerably over time.

Anorexia	Bulimia
Likely to start age 14-18	Likely to start age 15-19
Refusal to maintain an adequate body weight	Can vary from under to over-weight
Denial of hunger and disorder	Intense hunger experienced. Perception of binge-purge behaviour as abnormal.
Anti-social behaviour, not typical	Tendency to anti-social behaviour and alcohol abuse
Amenorrhea of 3 months duration is common	Irregular periods are common, amenorrhea is not
Mistrust of others/helpers	Mistrust of others not typical
Tends to be obsessional	Tends to be dramatic
Females likely to reject traditional female roles	Females more likely to roles accept traditional female
Tendency to comply with parents	Tendency to conflict with parents

DSM IV Criteria Anorexia	DSM IV Criteria Bulimia
• **Refusal to maintain body weight at or above minimally normal weight for age and height** • **Intense fear of gaining weight or becoming fat, even though underweight.** • **Disturbance in the way in which one's body weight or shape is experienced, undue influence of body weight or shape on self evaluation, or denial of the seriousness of current low body weight.** • **Secondary Amenorrhea** • **Two types: restricting and binge eating/purging**	•**Recurrent episodes of binge eating characterized by:** – **Eating in a discrete period of time, an amount of food that is definitely larger than most people would eat during a similar period of time and circumstances.** **A sense of lack of control over eating during the episode** •**Recurrent inappropriate compensatory behavior in order to prevent weight gain.** •**Binge eating and inappropriate behavior both occur, on average, at at least 2/week X3 months.** •**Self evaluation is unduly influenced by body shape and weight.** •**The disturbance does not occur exclusively during episodes of AN.**

Between 80-90% of people with bulimia vomit after eating in an attempt to control their weight.

One third use laxatives while others may exercise excessively. Compensatory behaviours reduce discomfort and feelings of anxiety, self disgust or lack of control associated with bingeing. Ironically however they frequently fail to prevent the calorific intake from much of the ingested food.

Bulimia involves some risk to health. Repeated vomiting and laxative abuse can lead to problems including abdominal pains, digestive problems, dehydration, damage to the stomach lining and to the back of teeth where regurgitated acid can do permanent damage to tooth enamel. The most serious outcome can be an electrolyte imbalance leading to renal damage and potentially cardiac arrhythmias.

Prevalence

The lifetime prevalence of bulimia is reported to range from 0.5-3% of the general population[1]
However, among young females (6%) and female college students (5%) the rates are higher [2]

According to Schwitzer et al (2001) up to 50% of female surveyed reported periodic binges; 6% had tried vomiting and 8% had used laxatives on at least one occasion. Few, however, had engaged in these behaviours sufficiently for them to be considered a disorder.

Bennet, P (2005) Abnormal Clinical Psychology

http://emedicine.medscape.com/article/806548-overview

7a. Analyse etiologies of depression (biological, cognitive and socio-cultural factors)

Biological factors

Identical (MZ) twins share 100% of their genes, whilst DZ share just 50%. If we assume the environment shared by twins is almost the same for both types of twins we can conclude that greater similarities between MZ twins than DZ must be the result of genetic influence. McGuffin et al (1996) studied 177 MZ twins with depression. The concordance rate was 46% for MZ, and 20% for DZ twins suggesting a substantial heritable component.

The concordance rate is not significantly high suggesting strong psychological/ environmental factors. Even with MZ twin raised apart it is impossible to fully separate the effects of the environment. Environmental similarities may occur even when genetic relatives do not live together. Family groups tend to share certain characteristic such as social class and lifestyle. Furthermore the correlation only allows us to infer genetic causation of depression.

The serotonin hypothesis suggests a link between low synaptic serotonin levels and depression. This is supported by the fact that the cerebrospinal fluid in depressed, especially suicidal patients contains less of a major serotonin byproduct, suggesting lower levels of serotonin in the brain. The introduction of Prozac and other antidepressants able to selectively block serotonin reuptake confirm this association.

Delgado & Moreno (2000) found abnormal levels of serotonin and noradrenaline in patients suffering from major depression. Furthermore in an earlier study Delgado et al (1994) gave depressed patients who were receiving anti-depressant medication a special diet that lowered their tryptophan levels - a precursor of serotonin. Most patients experience a return of their depressive symptoms, which disappeared when their diet returned to normal

However since it is not possible measure brain serotonin levels in living humans there is no way to test Delgado's theory of abnormal levels. This is supported by Lacasse & Leo (2005) who argue that contemporary neuroscience research has failed to provide evidence that depression is caused by a single neurotransmitter deficiency.

It may be the case that depression causes changes in neurotransmitters – the direction of cause and effect is uncertain.

Cognitive factors

The emphasis in the cognitive level of analysis is on the role of cognitive processes in mental disorders. These cognitive factors are believed to play a direct causal role in disorders such as depression – specifically negative thought patterns.

Cognitive theories of mental disorders were developed mainly by Albert Ellis (1962) and Aaron Beck (1967). We shall focus on the work of Beck. According to Beck (1976) people who develop depression have cognitive distortions which centre around the cognitive triad (negative schema). This consists of negative thoughts about themselves, the world and the future. Depressed patients typically regard themselves as helpless, worthless and inadequate.

This negative schema is acquired in childhood through early experiences such as loss of a family rejection by peers or negative or critical parents. Some kind of critical life event is required to a activate this negative schema later in life. For example, someone who has acquired a cognitive triad will not necessarily develop depression; only if they experience a stressful or challenging situation, similar to the one in which the negative schema were acquired in the first place, are the schema likely to be activated in the first place leading to a negative view of the world that in turn predisposes the individual to depression.

Once the negative schema are activated a number of illogical thoughts or cognitive biases seem to dominate thinking. Beck identified such illogical thought processes as overgeneralizating, catastrophising, labelling, filtering, magnifying, and personalization. Such thoughts exacerbate, and are exacerbated by the cognitive triad. Beck believed these thoughts or this way of thinking become automatic. When a person's stream of automatic thoughts is very negative you would expect a person to become depressed. Quite often these negative thoughts will persist even in the face of contrary evidence.

Evaluation

Cognitive theories easily lend themselves to testing and research has confirmed possible links between cognitions and depression. Most people who suffer from depression do exhibit irrational beliefs and cognitive biases such as self-criticism.

Alloy et al (1999) conducted a longitudinal prospective study. A prospective study is a study in which participants are chosen on the basis of a variable (eg. negative thinking) and then followed to see what happens long term. He followed a sample of young Americans in their early 20's for 6 years. Their thinking style was tested and they were placed in either the 'positive thinking group' or 'negative thinking group'.After 6 years the researchers found that only 1% of the positive group developed depression compared to 17% of the 'negative' group. These results indicate their may be a link between cognitive style and development of depression (Crane, p. 154).

However it is important to remember that the precise role of cognitive processes is yet to be determined. The maladaptive cognitions seen in depressed people may be a consequence rather than a cause of depression.

Socio-cultural factors

Those diagnosed with mental disorders live within a society, and that society affects how they behave and how they are treated. Social and cultural factors may partially therefore trigger a predisposition to a mental disorder. Society creates a number of risk factors including life stressors such as divorce, redundancy and death of a loved one, deprivation, urbanization, prejudice and discrimination, lack of support and social norms and expectations.

Level of support within different cultures may be an important determinant of depression according to a study by Chio and Blizinsky (2009).

People with a variant of the 'serotonin transporter gene' (5-HTT) have been shown to be more susceptible to depression. There are two variants of the gene, a long and a short allele. Individuals with the short allele have a reduced ability to transmit serotonin between brain cells, making them more susceptible to depression.

A study by Chio & Blizinsky (2009) showed that as many as 70 to 80% of people in East Asian populations carry the short allele, compared with 40 to 45% among Europeans. Their study compared genetic frequency information and cultural value data across 29 countries (major European countries as well as South Africa, Eastern Europe, South Asia, East Asia, and South America). At the same time previous research has shown that rates of depression are lower in East Asia than in regions of Europe. How can this be explained ?

The two most researched dimensions of culture are individualism and collectivism (Hofstede, 1974). Individualistic societies emphasize independence whereas collectivist societies are more likely to emphasize interdependence. According to Chiao (1999) it is the social kinship and support of collectivist societies that buffers individuals from the expression of the 5-HTT gene. Conversely, that would suggest that there is also a correlation between individualist societies and high rates of depression. This important study demonstrates both the importance of gene-environment interactions, and the influence of culture on depression.

Another example of social factors influencing depression is that of life stressors, particularly on women. According to statistical evidence, women are 2 to 3 times more likely to become clinically depressed than men. Brown & Harris interviewed women diagnosed with depression and found that 82% of them had experienced at least one major stressful event in their lives.

Evaluation

This study suggests that social stress plays a decisive role in triggering depression, but it has also demonstrated that social factors may increase an individual's *vulnerability* to depression, which implies a biological predisposition. This is also the case in the Chiao & Blizinsky study. Therefore social factors alone cannot cause depression.

A more useful approach is the biopsychosocial model which can be seen in the diathesis-stress model.

Conclusion

Diathesis – stress model of depression

One classic example of the biopsychosoical model of depression is the diathesis-stress model (Coyne & Whiffem,1995: Ingram & Price, 2001). This model proposes that disorders such as depression result from the interaction over time of a predisposition or vulnerability to a psychological disorder (called diathesis - that can involve a particular genetic make-up) and the experience of stressful events. This model explains why some people are more susceptible to adverse reactions in the event of stress than other people.

According to the diathesis – stress model individuals predisposed to become depressed are not likely to do so unless they experience significant losses or other stressful events. One stressful life event (eg. death or divorce) is usually not enough to trigger major depression, but when negative events accumulate or become chronic a vulnerable person may succumb to depression. Meanwhile, individuals who do not have a diathesis may be able to withstand high levels of stress without becoming depressed.

Researchers can now pinpoint some of these diathesis-stress, or gene-environment interactions. For example inheriting a particular variant of a gene involved in controlling levels of the neurotransmitter serotonin and experiencing multiple stressful events in early adulthood can results in major depression.

This was demonstrated in a landmark study by Caspi et al (2003). Caspi and his team studied a cohort of 1032 people (males and females) who were followed up at approximately two-year intervals from age three to age 26 in the Dunedin Multidisciplinary Health and Development Study, in New Zealand.

The participants were tested for the 5-HTT transporter gene, which promotes the transmitter substance serotonin. The gene is polymorphic: it occurs in two forms, one short and the other long. The long form is more efficient at promoting serotonin. Each person has two such genes, on paired chromosomes. In the cohort, 17% of participants had two shorts, 51% cent had a short and a long, and 3% had two longs. Participants were also assessed for adverse life events between their 21st and 26th birthdays.

Results showed that for participants who suffered an adverse life event, those who had gene pairs that included at least one short form of the gene were more likely to become depressed than those who had two long forms. The risk of becoming depressed was greatest for people with two short forms of the gene. Where people had at least one short form of the gene but no adverse event, depression did not occur. Having two long forms of the gene, and hence increased serotonin, was a protective factor for depression in response to adversities, similar to the effect of social support

7b. Analyse etiologies (biological, cognitive and socio-cultural factors) of Bulimia

Biological factors

Twin studies

Genetic factors may contribute to risks for both anorexia and bulimia.

KENDLER ET AL. (1991)

Aim:

To establish the prevalence (number of cases) of bulimia and to see whether there were genetic risk factors

Procedures:

- 2,163 female twins were given personal, structured, psychiatric interviews

-The twins were assessed for psychiatric disorders

-The risk factors for bulimia nervosa were recorded

Findings:

- The prevalence of bulimia nervosa was 2.8% of those interviewed

_ Risk factors for bulimia included: being born after 1960, poor parental care; dieting and fluctuating weight;

slim ideal body image; low self-esteem; feeling a lack of control overone's life

Serotonin

Animal studies have shown that when serotonin is released into either the ventromedial or hypothalamus animals stop eating and may starve despite the presence of food. Thus high levels of satiation lead to feelings of satiation and lower levels of eating – as well as improve mood. So low levels of serotonin may result in excess eating and low mood.

One explanation for the eating binges associated with bulimia has been that dieting reduces levels of tryptophan, a precursor to serotonin, leading to low mood and cravings for food high in tryptophan – carbohydrates such as chocolate, cakes and chips. Eating these restores serotonin and mood levels to normal. In support of this hypothesis Kaye et al (1988) found that women with bulimia typically stopped binging if their levels of tryptophan increased significantly with following an eating binge: those who tryptophan remained relatively low continued bingeing.

However despite some supportive data this theory has not always been supported by empirical evidence. Weltzin (1995) for example, found no evidence of reduced levels of tryptophan prior to binge eating episodes in women with bulimia.

Fairburn's Cognitive-behavioural model

Cognitive models of eating disorders, such as Fairburn's (1997) model, proposes that the key maintaining factors is the tendency to judge self-worth in terms of weight or shape. For some people, their concerns about weight reflect a wider lack of self-esteem and a vulnerability to cultural messages about body weight.

This causes the individual to diet to attain that ideal weight or shape following strict and often unrealistic dietary rules and restrictive eating. Whilst studies show that people with Anorexia have sufficient self-control to restrain themselves, people with bulimia on the other hand are more impulsive and sensation-seeking (Cassin & von Ranson, 2005) [3] and therefore engage in eating.

Figure 12.1 The cycle of bulimic behaviour and cognitions
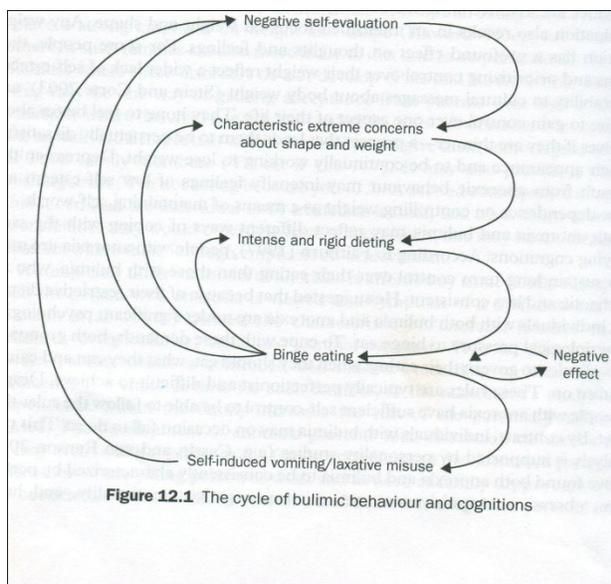
Once an individual with bulimia starts to eat they typically engage in dichotomous (all-or-nothing) thinking (I've eaten, so that's the end of my diet, what's the point of even trying to diet…) and a binge occurs.

However these initial positive feelings are followed by shame, disgust and guilt. Thus therefore purgative behavior follows such as self-induced vomiting, laxative or diuretic misuse, excessive exercise or fasting. Purging also works to reinforce binge eating, because it counters the effects of binging. This results in the perpetuation of a binge-purge cycle.

Evaluation

Research has shown that people with bulimia do have strong cognitive biases in their thinking, but it remains unclear if these biases exist before the onset of the eating disorder, playing a part in their development or whether they only develop afterwards, in which they cannot be a causal factor.

Parts of Fairburn's model have been tested, but the theory as a whole has not been tested in its entirety. More research is needed into cognitive models.

Socio-cultural factors

Many eating disorders begin when a young woman who is not substantially overweight comes to believe that she needs to go on diet. Aspects of the woman's personal history may contribute to her dissatisfaction with her own body shape, but the desire to be thin will also be powerfully influenced by a cultural emphasis on physical appearance within western society. Images of femininity and female attractiveness have shifted since the 1950's/60's voluptuous figure as ideal, to the 1990's waif look as ideal. The current representation of the ideal female as thin is so pervasive in the media that we have accepted it as normal. Yet the ideal female figure is not only unattainable by the vast majority of women, but is lighter than the standards associated with good health by insurance companies. In 1965 the average model weighed 8% less than the average American woman; as of 2001 she weighs 25% less.

It is perhaps not surprising that the prevalence of low body weight and eating disorders is highest amongst those groups where physical attractiveness is placed at a premium, such as models, dancers, actors and athletes. As social groups develop positive attitudes towards thinness, levels of eating disorders rise with them. In the USA for example, as high value on thinness has shifted from white upper-class women to those in the lower socio-economic groups and other ethnic groups, so has the prevalence of dieting and eating disorders (Streigal-Moore & Smolak, 2000).

Judgments and prejudicial views based on weight are not only aesthetic, but are linked to lifestyle and health. Thus body shape can be a major criterion of self and other – evaluation (Wardle & Marshland, 1990).

Men too are now beginning to come under pressure. The ideal "worked-out" male figure that appears in many commercials produces a strong demand to mirror the ideal. In 1993, a MORI survey of adult males in the UK showed that one-third of men believed a change in shape would make them more sexually attractive.

Cross-cultural studies Jaegar et al (2003)

The researchers aimed to investigate body dissatisfaction as it has been identified as a risk factor for bulimia, across a number of cultures.

They sampled 1751 medical and nursing students across 12 countries. Self report method was used to obtain data on body dissatisfaction, self esteem and dieting behavior. Body Mass Index (BMI) which takes account of height and weight was also measures. A series of 10 body silhouettes, designed to be as culture-free as possible were shown to the participants to assess body dissatisfaction.

Jaegar found that;

a) Body dissatisfaction was highest in those countries with high levels of Bulimia. This demonstrates that body dissatisfaction is better predictor of Bulimia than self esteem or weight.
b) Body dissatisfactions was highest in Mediterranean countries, followed by northern European countries, followed by countries in the process of westernistion and lowest in non-western countries

Such a study supports a socio-cultural explanation of eating disorders. Body dissatisfaction can only be a result of idealized body images portrayed in the media. Western countries are more exposed to these images, which may explain why countries in the process of westernistion are experiencing increasing numbers of Bulimia.

However it is important to note that this was a natural experiment, in which the IV (culture) was not under the control of the experimenter. Therefore we cannot conclude that culture causes differences in body dissatisfaction and the subsequent risk for bulimia. Furthermore the participants were all medical or nursing students, and so therefore an educated sample such as this cannot be representative of the general populations of each culture.

8. Discuss cultural and gender variations in the prevalence of disorders

example exam approach: In this answer I will discuss cultural and gender variations in the disorder depression – with specific reference to cultural variations in China.

Example: China & depression

The apparent rarity of depression in China was noted by Western observers in the early 1980s. A psychiatric survey of mental disorders was undertaken in seven regions in 1993. The lifetime prevalence of affective disorder was 0.08%, and the point prevalence was 0.05%,   At face value, the 1993 data suggest the community rate of depression was several hundreds of times lower than in the United States. What are possible reasons for this difference in prevalence ? Research shows a number of different reasons;

1.Psychological symptoms are primarily reported as physical symptoms.

This is partly because a long-standing attachment to the diagnosis of shenjing shuairuo, (neurasthenia) which translates as 'neurological weakness'. Patients presenting with a clinical picture of insomnia, dizziness, headache, poor concentration, and related complaints commonly receive a diagnosis of neurasthenia as patients often prefer to interpret their illness as physical in origin and report only somatic discomforts to their doctors. However although diagnoses of neurasthenia is becoming less common, and there has been a shift to more psychological symptoms, based on western criteria might ignore culturally valid experiences of physical distress.

2.Stigma

Mental illness is stigmatized in traditional Chinese culture, as in many parts of the world. It is seen as evidence of weakness of character and a cause for family shame, a "collective loss of face" for the extended family . The family may deny a family member's mental illness, while fear that others may find out about mental illness in the family may prevent the family from obtaining adequate outside help . The stigma of depression is likely to have reduced the identification of the illness in both community surveys and clinical settings

3.Differences in diagnostic practice

A number of publications have outlined differences in diagnostic practices that may influence the reported rates of depression among the Chinese. For example, Chinese psychiatrists have tended to take a broad diagnostic view of schizophrenia and in some cases of depression may be diagnosed as schizophrenia.

In a study comparing DSM-III diagnoses with diagnoses made by Chinese psychiatrists using the Chinese diagnostic criteria in 116 patients in Shanghai, one-half of those who received a DSM-III diagnosis of depression received a different diagnosis, including schizophrenia, from the Chinese psychiatrists (Parker, 1988) However whilst this indicates differences in diagnostic practice it does not mean one diagnosis is any more valid than the other, as the DSM is a western diagnostic tool.

4.Resilience

Certain Chinese socio- cultural factors may provide some protection against becoming depressed. Parker et al (2001) list several factors that promote resilience in the Chinese. These include a strong sense of interdependence with family and social support, collective responsibility and a tendency towards fate and stoicism may mean the Chinese are more able to both manage and accept depression. As a consequence, the distinction between "normal" and "pathological" states may be quite different than the Western threshold. Nevertheless generalizations about cultures may be misleading, inaccurate and promote cultural stereotyping.

Discuss gender differences in the prevalence of depression

One of the most robust findings in depression research is that women are twice as likely as men to experience depression. Studies of large samples tell us that the lifetime rate of clinical depression is 20 to 25% for women and 7 to 12% for men. Studies conducted in a variety of developed countries including Canada, the US and the UK, New Zealand, Italy, Germany and Sweden produced similar results. Women clearly experience more major depression than men do and also more likely than men to be diagnosed with other disorders at the same time (co-morbidity). Many explanations have been proposed to explain these differences;

Artifactual explanations

Much research has assumed the different rates are the result of an artifact. An artifact is a misleading result that occurs when an apparent gender difference is due to some other variable that is associated with gender.

Reporting bias

Critics point out that women may be more willing to seek treatment for emotional problems or more likely to admit they're depressed This hypothesis holds that men and women experience depressive symptoms equally frequently, and to the same degree, but because depressive symptoms are perceived as feminine (Chevron, Quinlan, & Blatt, 1978), men are less likely to admit to them

Expression of symptoms

According to this hypothesis, men and women are equally susceptible to depression, but depression in men often takes the form of "acting- out" behaviors instead of sadness, passivity, and crying, which are symptoms commonly included in self-report inventories Hammen & Peters, 1977). In particular, it has been suggested that the male equivalent of depression is alcoholism (Winokur & Clayton, 1967). Proponents of this argument point to statistics showing that twice as many men as women are diagnosed as alcoholics (e.g., Williams & Spitzer, 1983), and suggest that the rates of alcoholism in men make up for the absence of depression in men. This argument is boosted by evidence that in cultures in which alcohol consumption is strictly prohibited, such as among the Amish, no sex differences in depression are found (Egeland & Hostetter, 1983). In addition, many studies find high rates of depressive symptoms among alcoholic men (Petty & Nasrallah, 1981).

Gender bias

Another possible artifact is gender bias. Women are more likely to be receive a diagnosis of depression because of gender bias amongst doctors and psychiatrists. Some characteristics of depression such as passivity and low-self esteem are thought to be consistent with the female gender role. Thus there is a concern that doctors are sensitized to seeing 'depression' in their female patients.

Biological Explanations

The pervasiveness of the sex differences in depression across cultures suggests that women's greater vulnerability to depression may be the result of biological characteristics unique to women.

Two general types of biological explanations for the sex differences in depression have been proposed.

Hormones
Women's reproductive events include the menstrual cycle, pregnancy, the post pregnancy period, infertility, menopause, and sometimes, the decision not to have children. These events bring fluctuations in mood that for some women include depression. Researchers have confirmed that hormones have an effect on brain chemistry. Changes in emotions and mood often result. The specific biological mechanism explaining hormonal involvement in depression is not known

Genetics
Major depression runs in families. In a review of twin studies of affective illness, Allen (1976) found that in DZ twins, the average concordance rate for depression was 1%, but in MZ twins the average concordance rate depression was 40%. The substantially high concordance rate for MZ twins indicates some sort of genetic transmission of the disorder. Could it be that the sex differences in depression are due to a greater genetic predisposition to depression in women?

One possible genetic explanation is x-linkage; that is, the position of the relevant locus on the x chromosome. If the gene for depression is located in the x chromosome and the trait is dominant, females, who have two x chromosomes, will be more often affected than males, who have only one x chromosome (Nazroo & Edwards, 1998). However, we must remember that this is just a hypothesis.

One way to test the X-linkage hypothesis is to examine the transmission of affective disorder from parents to children. Specifically, if a father carries the mutant gene on his X chromo-some (and therefore manifests affective disorder), all of his daughters will carry the mutant gene, because the father always gives his daughters an X chromosome. Yet none of an affected father's sons will carry the mutation, because the father always gives his sons a Y chromosome. If a mother carries the mutant gene on one of her two X chromosomes, then her daughters and sons have equal chances of carrying the mutant gene. In short, if affective disorder is linked to the X chromosome, we should observe father-daughter pairs of affected individuals, but no father-son pairs (except for sons suffering from reactive depressions). We should observe equal numbers of mother-daughter and mother-son pairs.

Gershon and Bunney (1976) compiled data from these and several other studies and found that for 106 father-son pairs in which the father had an affective disorder, 10 sons (roughly 10%) showed affective disorder. This prevalence is higher than that in the general population. If the X-linkage hypothesis were true, the prevalence of depression in the sons of fathers with affective disorder should be considerably lower than that in the general population.

Comment on biological factors
There is no consistent evidence that the observed sex differences in serious affective disorders are due to a greater genetic predisposition to the disorder in women. The evidence for the influence of fluctuations in female hormones and other bio-chemicals on mood was more mixed. Some studies provided indirect support for relations between levels of particular bio-chemicals and moods, but many others did not. The more general notion that depression is common during the premenstrual, postpartum, and menopause periods has not been supported.

Finally, the biological explanations of sex differences in depression, as a class of explanations, do not explain the absence of sex differences in certain subgroups, such as the Amish, uni-versity students, and bereaved persons. Psychosocial factors, such as the supportiveness of the Amish culture or the great rimpact of a spouse's death on men than on women, more convincingly explain the variations across groups in sex differences in depression

Stress and chronic strain.

Women face a number of chronic burdens in everyday life as a result of their social status and roles relative to men, and these strains could contribute to their higher rates of depression (Nolen-Hoeksema, 1990). Women make less money than men, and are much more likely than men to live in poverty. Women are more likely than men to be sexually harassed on the job. Women often have full-time paid jobs and take responsibility for most child care and domestic work.. This role overload is said to contribute to a sense of "burn out" and general distress, including depressive symptoms, in women.

Biopsychosocial model

More recent biological research-has focused not on direct effects of-ovarian hormones on moods, but-on the moderating effects of hormones,-particulady adrenal hormones,-on responses to stress. The hypothalamic-pituitary-adrenal (HPA) axis plays a major role in regulating stress responses, in part by regulating levels of a number of hormones, including cortisol. Cortisol levels can affect other bio-chemicals known to influence moods. People with major depressive disorder often show elevated cortisol responses to stress, indicating dys-regulation of the HPA response.

One hypothesis is that women are more likely than men to have a dys-regulated HPA response to stress, which makes them more likely to develop depression in response to stress (Weiss et al.,1999). The causal relationship between HPA axis regulation and the gender difference in depression has not been established but is likely to be a major focus of future research.

http://www.yale.edu/snhlab/Gender%20Differences_files/Nolen-Hoeksema,%202001.pdf

9.Examine biomedical, individual and group approaches to treatment

10. Evaluate biomedical, individual and group approaches in the treatment of depression

1.Biomedical treatments

The biomedical approach is based on the assumption that a neurotransmitter imbalance is implicated in disorders such as depression. The serotonin hypothesis suggests that there is an lack of serotonin in the synaptic gaps for effective transmission. Most medications aim to increase the amount of serotonin available by preventing the reuptake of serotonin, making it stay in the synaptic gap longer, and thereby increasing the efficiency of the serotonin already present. The most common SSRI is fluoxetine, more commonly known by its brand name Prozac.

The two main criticisms of fluoxetine are that it treats the only the symptoms but does not cure, thus making people dependent on it. Such drugs often have significant side effects including sexual problems, insomnia and even an increase in suicidal thoughts. For many people the side effects outweigh the benefits.

Evaluation
Generally antidepressants such as Prozac are an effective way to treat depression. However a well known study by Elkin et al (1989) conducted by the NIMH randomly assigned patients to drug therapy or cognitive therapies. The control group was given a placebo pill. All patients were assessed at the start, after 16 weeks and after 18 months of treatment. Results showed the drug group showed the fastest results, but no other difference in the effectiveness of treatment between drug therapy and cognitive therapies such as CBT. Such a study does raise ethical issues, in that lying to patients about the kind of treatment they receive is not only deceptive, but also possibly dangerous if the patient is having frequent suicidal thoughts (and put in a placebo condition).

A meta analysis of 19 studies by Kirsch & Sapirstein (1998) found that anti-depressants were only 25% more effective than placebos.

The debate over the effectiveness of drugs is also a political one. Drug manufacturing and marketing is multi-million dollar industry. Negative press for drugs would lead to a massive loss of income for a number of pharmaceutical companies

2.Individual approaches – Cognitive therapy

The rationale behind cognitive therapy is to identify faulty patterns of thinking, and to replace them with more positive ways of thinking.

Cognitive Behavioral Therapy is based on the idea that how we think (cognition),how we feel (emotion) and how we act (behavior) all interact together. Specifically, our thoughts determine our feelings and our behavior. CBT then aims to identify these negative thoughts, challenge them and replace them with positive thoughts. The emphasis is on client meta-awareness – that is, the ability to think about their own thoughts. Thoughts and feelings are seen as mental events that can be examined objectively and changed if necessary.

Cognitive-behavioural therapy for depression

Although a variety of different models and interventions have been developed under the rubric of cognitive-behavioral therapy, all share certain features that are common to CB;

1.Cognitive restructuring

Cognitive restructuring involves teaching clients to become aware of their automatic negative thoughts, to evaluate the extent to which these thoughts are accurate or rational, and to replace irrational thoughts with more reasonable interpretations, evaluations, and assumptions. Some cognitive distortions that clients learn to identify are; all-or-nothing thinking; magnifying or minimizing the importance of an event; overgeneralization (drawing extensive conclusions from a single event); personalization (taking things too personally); selective abstraction(giving disproportionate weight to negative events); arbitrary inference (drawing illogical conclusions from an event);

Once negative ways of thinking have been identified, the therapist helps the client work on replacing them with more adaptive/positive ones. This process involves a repertoire of techniques, including self-evaluation, positive self-talk, control of negative thoughts and feelings, and accurate assessment of both external situations and of the client's own emotional state. Clients practice these techniques alone, with the therapist, and also, wherever possible, in the actual settings in which stressful situations occur (*in vivo*), gradually building up confidence in their ability to cope with difficult situations successfully by breaking out of dysfunctional patterns of response.

2.Behavioural activation

Cognitive-behavioral therapies require clients to behave in new ways in order to alter maladaptive patterns of interpreting and interacting with their environments. Novel interventions and activities are developed and performed by the client both in session and beyond in an attempt to address and eventually modify dysfunctional distortions, behaviors, and beliefs

3.Homework

Homework is an important component of cognitive-behavioral treatments. Homework may include such activities as practicing specific techniques (e.g., relaxation or breathing), conducting personal experiments, rehearsing behavioral skills, or completing cognitive journals and assessments

Evaluation

We have already seen in the previously mentioned study by Elkin (1998) that CBT is as effective as drug treatment. They are also quite cost-effective as they do not involve prolonged treatment. However CBT focuses only on symptoms and strategies and does address the causes of depression.

3.Group approaches - Group therapy

Group psychotherapy is a special form of therapy in which a small number of people meet together under the guidance of a professionally trained therapist to help themselves and one another.

Interpersonal group therapy for depression

Although developed as an individual model for therapy IP naturally lends itself to group sessions. IPT examines the person's past and current social roles and assumes that mental illnesses such as depression occurs within a social system and that one's social (interpersonal) roles are of the keys to recover – in other words depression can be treated by improving the communication patterns and how people relate to others.

An advantage of IP group therapy is that it serves as an 'interpersonal laboratory' in which interpersonal functioning can be observed and new ways of relating tried out through role playing. Participants can join one another in applying various therapeutic techniques. It can provide practical and empathetic interactions between group members.

Bolton (2003)

Trials of interpersonal therapy in Uganda, a country ravaged by war, poverty and AIDS, have shown the approach to be remarkably effective, especially among women. Specifically, Uganda has had notable success in reducing the incidence of AIDS. Health workers there feel that combating depression is an important aspect of this success, since depressed people often engage in risky behavior.

Bolton et al (2003) conducted a randomised controlled trial comparing group interpersonal psychotherapy with treatment as usual among rural Ugandans meeting the criteria for major depression.

Therapy was conducted in single-gender groups of five to eight participants, with one group per participating village. Groups met for approximately 90 min once a week for 16 weeks. Each group was led by a local Ugandan of the same gender with no previous mental health or counselling experience other than training in group interpersonal psychotherapy by members of the study team

Results showed that interpersonal group therapy proved highly effective in reducing depression: after therapy only 6 percent of the treated group met the criteria for major depression, compared with more than half of the untreated control group

Evaluation

Group therapy has numerous advantages over individual therapy. The therapist's knowledge about the clients offers an added dimension through the opportunity of observing them interact with each other. Clients are helped by listening to others discuss their problems (including problems more severe than theirs) and by realizing that they are not alone. They also gain hope by watching the progress of other members and experience the satisfaction of being helpful to others. Groups give the individual client the chance to model positive behavior they observe in others. Besides learning from each other, the trust and cohesiveness developed within the group can bolster each member's self-confidence and interpersonal skills. Group therapy gives clients an opportunity to test these new skills in a safe environment. In addition, the group experience may be therapeutic by offering the clients a chance to reenact or revise the way in which they relate to their primary families. Finally, group therapy is cost-effective, reducing the use of the therapist's total time.

Nevertheless, there are also some possible disadvantages to group therapy. Some clients may be less comfortable speaking openly in a group setting than in individual therapy, and some group feedback may actually be harmful to members. In addition, the process of group interaction itself may become a focal point of discussion, consuming a disproportionate amount of time compared with that spent on the actual presenting problem. This can especially be a problem with interpersonal therapy.

11. Discuss the use of eclectic approaches to treatment

Depression and Bulimia are complex disorders, with multi-faceted etiologies. With this in mind it could be argued that therapists should use an eclectic approach in the treatment of disorders.

An eclectic approach incorporates principles or techniques from various theories. Eclectic therapy recognizes the strengths and limitations of the various therapies, and tailors sessions to the needs of the individual client or group. For example, in the case of a depressive patient who is suicidal, cognitive-behavioural therapy (CBT) may take too long to take effect, or the individual may not be in a state that would allow for discussions about his or her cognitive processes. Drug therapy may be used in order to lessen the symptomology of the disorder; then, once the individual is stabilized, CBT might be used. Also, as the individual becomes more self-reliant, group therapy may be recommended in order to help him or her develop strategies to avoid future relapse, as well as a support system.

Abraham et al (2009) gives an example of an eclectic approach to eating disorders. It includes Cognitive – behavioural therapy + interpersonal therapy + nutritional therapy.

Cognitive/Behavioral Therapy
Cognitive/Behavioral Therapy groups use strategic therapy with the goal of modifying underlying schemata in order to break the self-perpetuating cycle of dieting, bingeing, and purging. A patient learns to monitor her thinking and beliefs about food, body shape, and weight. The therapist teaches how to collect data (homework) and examine it between the therapy meetings.

At the meetings, the therapist guides the patient to recognize the connection between her beliefs and their behavioral consequences. The therapist also facilitates deeper discussion related to maladaptive body image and self-esteem concepts. Behavioral methods are taught, which include self-monitoring, meal planning, stimulus control, and problem solving

Interpersonal group therapy
This part of therapy focuses on the some of the root causes – interpersonal problems of the disorder, which other therapies don't address. Patients with eating disorders are generally well defended in regard to interpersonal problems. Because many tend to over-accomodate in relationships, are hypersensitive to criticism and rejection, and have difficulty identifying and expressing feelings, the therapist generally spends more active time and work with an eating disorders group than most other psychotherapy groups. The group is unstructured and works in the "here and now" format. Members interact in a social microcosm in which the individual eventually begins to exhibit a maladaptive mode of relating to others. The goal is to foster corrective emotional experiences, so that the individual may improve by addressing issues dealing with self-regulation, identity, and personal empowerment.

Nutritional therapy
Because patients with eating disorders have distorted ideas about food, erratic eating habits or simply do not eat, nutritional therapy offers important treatment. This includes taking a dietary history, discussion about eating habits and helping develop strategies to reduce chaotic eating (in the case of Bulimia). The long term aim is to help the person learn 'normal' eating behavior.

Advantages of using an eclectic approach

1. Eclectic approaches have a broader theoretical base and may be more sophisticated than approaches using a single theory.
2. Eclectic approaches offer the clinician greater flexibility in treatment. Individual needs are better matched to treatments when more options are available.
3. There are more chances for finding efficacious treatments if two or more treatments are studied in combination.
4. The clinician using eclectic approaches is not biased toward one treatment and may have greater objectivity about selecting different treatments

Disadvantages

1.Sometimes clinicians use eclectic approaches in place of a clear theory. Eclectic approaches are not substitutes for having a clear orientation that is supplemented with other tested treatments.

2. Sometimes eclectic approaches are applied inconsistently. It takes knowledge and skill to deliver eclectic approaches effectively.

3. In general there are very few efficacy studies at this stage to support the approach, partly because it is difficult to judge the relative value of each treatment in an eclectic approach.

4. However it is important to remember that eclectic approaches may be too complex for one clinician. There is always a danger that clinicians might call themselves "eclectic" when they really have no clear direction for treatment.

Abraham & Llewelyn-Jones (2001) Eating Disorders: The Facts

Crane & Hannibal (2009) **IB Psychology** Course Companion

http://www.school-for-champions.com/mentalhealth/eating_disorders_therapy.htm

12. Discuss the relationship between etiology and therapeutic approach in relation to *one disorder (depression)*

Historically, there have been different views on causes of psychological disorders and these have all been influenced by knowledge and beliefs at the time. Some reflected the view that psychological disorders were caused by biological factors. Others said that they were rooted in the mind and yet others adopted an interactionist approach saying that it was a combination of biological factors and the mind. No matter the approach to abnormal psychology, the treatment of psychological disorders has generally linked what was thought to be the etiology — which simply means the cause of the disorder.

Biological approaches and therapies

Biomedical approaches to treatment are based on the assumption that biological factors are involved in the psychological disorder. This does not necessarily mean that biological factors cause the psychological disorder but rather that they are associated with changes in brain chemistry (neurotransmitters and hormones). A number of drugs are used to treat various disorders based on theories of the brain chemistry involved, but this does not mean that there is a full understanding of how neurotransmitters and symptoms are linked. Generally, however, antidepressant drugs are an effective way to treat depression in the short term, significantly helping 60-80 per cent of people, according to some reports (Bernstein et al. 1994).

However, it is argued that drugs do not target the problem but just address the symptoms, are not equally effective in all cases and may not be better than psychotherapy in the long term, according to some researchers. A controversial study by Kirsch and Sapirstein (1998) analysed the results from 19 studies, covering 2318 patients who had been treated with the antidepressant Prozac. They found that antidepressants were only 25 per cent more effective than placebos, and no more effective than other kinds of drugs, such as tranquillizers.

Elkin et al. (1989) carried out one of the best controlled outcome studies in depression, conducted by the National Institute of Mental health. This study included 28 clinicians who worked with 280 patients diagnosed as having major depression. Individuals were randomly assigned to treatment using either an antidepressant drug (imipramine), interpersonal therapy (IPT), or cognitive-behavioural therapy (CBT) or another form of therapy. In addition, a control group was given a placebo pill, together with weekly therapy sessions. The placebo/drug group was conducted as a double-blind design - a form of experimental control, whereby both the subject and experimenter are kept uninformed about the purpose of the experiment, to reduce any forms of bias (in particular, experimenter bias). All patients were assessed at the start, after 16 weeks of treatment, and after 18 months.

The results showed that just over 50 per cent of patients recovered in each of the CBT and IPT groups, as well as in the drug group. Only 29 per cent recovered in the placebo group. The drug treatment produced faster results, but the NIMH study shows that there is no difference in the effectiveness of CBT, IPT, and drug treatment. In other words, the study showed that it does not matter which treatments patients received, all the treatments had the same result.

Cognitive approaches and therapies

Individual therapies are those in which a therapist works one –on- one with a client. Most individual therapy today includes some kind of cognitive therapy, where a therapist helps a client to change negative thought patterns. According to Beck (1976) people who develop depression have cognitive distortions which centre around the cognitive triad (negative schema). This consists of negative thoughts about themselves, the world and the future, and developed from early negative experiences in early childhood.

Individual therapy is often seen as more personal than drug therapy, in which a person may feel more like a patient. It can also be more highly individualized to meet the need of the client. The aims of cognitive therapy are to help the client change faulty thinking patterns, to develop coping strategies and to engage in more positive behaviours.

Individual therapy is the most commonly used form of treatment and research has shown that it generally has a positive effect. A number of studies and meta-analyses have demonstrated that cognitive therapy, including CBT, effectively treats patients with depression (e.g. Elkin et al mentioned above).

Cognitive therapies are cost-effective because they do not usually involve prolonged treatment and no negative effects have been found.

However cognitive therapies, similar to drug therapies, have been criticized for focusing on symptoms than causes. We can be sure it is the cognitions causing the symptoms of depression in the first place, they may be a consequence of depression.

Social approaches and therapies

We have already seen how life stressors and lack of social support can be contributing factors to mental health problems. If social problems do trigger symptoms of depression then *group therapy* may help alleviate the symptoms.

The group can provide support for the client in ways that are not possible in individual therapy. Within the context of the group, clients realize they are not alone and that their problems are not unique. Group therapy offers multiple relationships to assist an individual in growth and problem solving. In group therapy sessions, members are encouraged to discuss the issues that brought them into therapy openly and honestly. The therapist works to create an atmosphere of trust and acceptance that encourages members to support one another. Since many disorders are either caused by or promote poor social skills, group therapy allows clients to role-play and develop social skills in a safe, supportive environment.

The beneficial effects that a therapy group can have on an individual have long been recognized, but until recently there was a lack of quality studies comparing the effectiveness of individual and group therapy for patients with similar characteristics. Toseland & Siporin (1 986) reviewed 74 studies comparing individual and group treatment . Group treatment was found to be as effective as individual treatment in 75% of these studies, and more effective in the remaining 25%.

However there are also some possible disadvantages to group therapy. Some clients may be less comfortable speaking openly in a group setting than in individual therapy, and some group feedback may actually be harmful to members. In addition, the process of group interaction itself may become a focal point of discussion, consuming a disproportionate amount of time compared with that spent on the actual presenting problem.

Eclectic approaches and therapies

There is now a general belief that a multifaceted approach to treatment is the most efficient. This is based on the *biopsychosocial* approach to mental disorders to treatment and involves a combination of therapies.

The biopsychosocial model sees the person as a whole; it recognizes the complexity inherent in psychological disorders. For example the cause of an individual's depression may be inter-related. Negative early childhood messages (psychological) and redundancy (social) may lead to feelings of worthlessness (psychological). Negative self talk (psychological) may lead to feeling stressed which leads to higher levels of cortisol (biological) and serotonin depletion (biological). This may affect Patient X's mood and coping mechanisms (psychological). This can lead to decreased communication and social skills and rejection by friends and colleagues (social). Thus, feeling unsupported, he feels more depressed, possibly further affecting neurotransmitter levels.

A multifaceted approach is called an eclectic approach. it may include drug treatment, individual therapy (e.g. cognitive therapy), or group therapy (e.g. family therapy) as well as help to handle risk factors in the environment such as a stressful relationship.

An eclectic approach incorporates principles or techniques from various systems or theories. Ec lectic therapy recognizes the strengths and limitations of the various therapies, and tailors sessions to the needs of the individual client or group. For example, in the case of a depressive patient who is suicidal, cognitive-behavioural therapy (CBT) may take too long to take effect, or the individual may not be in a state that would allow for discussions about his or her cognitive processes. Drug therapy may be used in order to lessen the symptomology of the disorder; then, once the individual is stabilized, CBT might be used. Also, as the individual becomes more self-reliant, group therapy may be recommended in order to help him or her develop strategies to avoid future relapse, as well as a support system.

The argument for an eclectic approach comes from research demonstrating that drug therapies alone often have significant relapse rates, that is the client begins to show symptoms of the disorder after having been symptom-free. Rush et al. (1977) suggest the higher relapse rate for those treated with drugs arises because patients in a cognitive therapy programme learn skills to cope with depression that the patients given drugs do not. A growing number of studies is showing that cognitive therapies are more effective than drug treatment alone at preventing relapse or recurrence except when drug treatment is continued long-term (Hollon and Beck 1994). Furthermore, a combination of psychotherapy (cognitive or interpersonal) and drugs appears to be moderately more successful than either psychotherapy or drugs alone (Klerman et al., 1994).

However it is important to remember that eclectic approaches may be too complex for one clinician. There is always a danger that clinicians might call themselves "eclectic" when they really have no clear direction for treatment.

Conclusion

Finally, it is important to note that causation of disorders such as depression are not easy to analyse, whilst an eclectic approach address the multi-faceted nature of depression, it can be further complicated by the following;

- No one treatment works for everyone. Even if "causation" is established, the selected
therapeutic approach should take into account a client's cultural values, a client's ability to tolerate drug treatments, a client's enthusiasm for group therapy, a client's willingness to address negative cognitive style, or a client's ability to start and follow through (self-efficacy) with the lifestyle changes necessary for dietary or exercise treatments.
- It is often difficult or impossible to identity a specific "cause" of any mental disorder. Attempts to do, such as the biological approach, represent a singular, reductionist approach to depression. However depression is a complex disorder caused by a number of factors.
- It is still possible to treat "symptoms." even when causes are unknown. For example, antidepressants or cognitive therapy treat depressive symptoms. Many clinicians measure symptoms before and after treatment with assessment instruments such as the Hamilton Rating Scale for Depression and the Beck Depression Inventory. Many consider a treatment to "work" if the symptoms are reduced, however not everyone agrees with this definition of "work." Therefore etiology is not always a priority in treating depression.

option 2 *developmental* psychology

1.To what extent do biological, cognitive and socio-cultural factors influence human development ?

example exam approach - In this answer I will discuss to what extent biological, cognitive and socio-cultural factors influence gender role formation

Biological factors	Cognitive factors	Socio-cultural factors
The biological approach assumes *gender* differences are a result of sex differences in biological processes (ie. Chromosomes and hormone secretion). It is these differences in brain development, and the differences in brain activity that cause men to behave differently from women and thus assume different roles	Gender schema theory is based on the assumption argue that early cognitive processes play a key role in gender development. Children form cognitive schemas about gender as soon as they discover and are able to categorise their own sex. The establishment of this basic *gender identity* (2-3 years) motivates children to learn about the sexes and start building a gender schema.	Research seems to lend weight to arguments that gender role is universal, and therefore possibly biological. But some research suggests that gender roles are a learned phenomena, and that culture is the socializing agent Cross- cultural studies such as Mead's (1932) with different tribes in Papua New Guinea show that typical masculine and feminine behaviors applied to both genders. Though it is important to remember this study is an example of imposed etic, applying western descriptions of gender to non-western cultures.
It is clear from a range of studies involving humans and other animals that chromosomal and hormonal differences between males and females affect a range of masculine and feminine behaviours, which supports the biological view. This is clearly shown in the case of Bruce/Brenda (later, David) Reimer in which a biological boy raised as a girl always felt like a boy, and went on to have surgery to revert back to being a boy. The biological view of gender is supported by those cross-cultural studies that have found universal features of gender. But Mead's study shows that labour division is not the same in all cultures, thus challenging the view that gender roles are innate (biological) and universal However, much of this research is correlational. Consequently, whilst it indicates a relationship between, for example, testosterone levels and risk taking, it does not indicate the direction of causality. Whilst higher testosterone might cause people to make riskier decisions, it might also be that the process of taking risks causes testosterone levels to rise.	Support for this comes from the study by Martin & Halvorsen (1983) . However, it is not clear why gender schemas develop and take the form that they do	The role of culture can also be seen in the changes in gender roles over the last 50 years. In western cultures women have steadily entered the labour market, and whilst there still exist specific gender roles (still more men are plumbers and engineers, and women primary schoolteachers and nurses) gender roles are slowly converging. Women occupy positions of power, are firefighters and soldiers (although they still can't fight on the frontline), men are becoming homemakers, nurses and child carers. A research study by Renicke (2006) revealed that young Danish fathers believe it is important for them to have close contact with their baby and take part in caring for the child. This clearly supports Mead's argument that gender role differences reflect cultural norms and expectations
Conclusion – An interactive perspective assume a number of biological, cognitive and social processes account for gender role. Biological development occurs before birth. The baby's sex influences how the child is labelled and treated accordingly. Early gender typing occurs due to reinforcement of same sex activities. As a result by 3 years the child forms a basic gender identity leading to the development of gender schemas. More attention is directed towards same sex models. Children continue to learn appropriate gender roles based on what society portrays through its gender curriculum		

2. Evaluate psychological research (that is, theories and/or studies) relevant to developmental psychology

example exam approach - In this answer I will evaluate research into Piaget's theory of cognitive development

Piaget founded the discipline we know as 'cognitive development'. He applied the philosophy of constructivism to the way children learn. They construct new knowledge by adapting knowledge to fit their schemas. In this way he also emphasized the role of the environment as well as biological factors. Classrooms now aim to provide stimulating environments in which children can construct knowledge. His theories have received a lot of support over many years, and whilst his theories have been subject to modification and criticism many fundamental aspects of his theories are still accepted as valid and relevant.

Many of these criticisms concern his research methods. Piaget studied his own children and the children of his colleagues in Geneva in order to deduce general principles about the intellectual development of all children. Not only was his sample very small, but it was composed solely of European children from families of high socio-economic status. Researchers have therefore questioned the generalisability of his data.

He used the term *clinical interview* to do his research. This took the form of an open ended conversational technique for testing children's understanding of certain tasks. Although clinical interviews allow the researcher to explore data in more depth, the interpretation of the interviewer may be biased. At the same time children may not understand the question/s, they have short attention spans, they cannot express themselves very well and may be trying to please the experimenter. Such methods meant that Piaget may have formed inaccurate conclusions.

Piaget failed to distinguish between competence (what a child is capable of doing) and performance (what a child can show when given a particular task). When tasks were altered, performance (and therefore competence) was affected. Therefore Piaget may have underestimated children's cognitive abilities. For example a child might have object permanence (competence) but still not be able to search for objects (performance). When Piaget hid objects from babies he found that it wasn't till after 9 months that they looked for it.
Whilst Piaget relied on manual search methods – whether the child was looking for the object or not later research such as Baillargeon and Devos (1991), reported that infants as young as 4 months looked longer at a moving carrot that didn't do what it expected, suggesting they had some sense of permanence, otherwise they wouldn't have had any expectation of what it should or shouldn't do.

A further example is that of 'egocentrism'. Egocentrism is the inability to see things from another's perspective. In Piaget's three-mountains task children up to aged nine were unable to describe a mountain-top scene from another doll's perspective. Hughes (1975) argued that the task was both unrealistic (mountain scene) and unmanageable (picking out photos). He tested egocentrism using a model of two intersecting walls, a doll of a little boy and two 'policeman' dolls and the child is asked to hide the doll where neither of the policemen can see him. Hughes found that pre-school children selected a correct hiding place for the boy 90% of the time. Even the youngest children in the sample (3 ½ -4 years) got it right 88% of the time. This suggested young children are able to see things from another's perspective.

Similarly, Piaget found that conservation tasks, such conservation of volume (liquid) was hard for children under the age of 7. However subsequent research, such as that by Samuel & Bryant (1984) found that children below that age of 7 were able to conserve. They argued that Piaget's pre-transformation question unwittingly forced children to give the wrong answer by asking the same question post-transformation –according to the child a change of liquid must surely require a change of answer.

As Piaget saw children as largely independent and isolated in their construction of knowledge and understanding of the physical world he has been criticized for failing to emphasize the role of social support and culture.

Dasen (1994) cites studies he conducted in remote parts of the central Australian desert with 8-14 year old Aborigines. He gave them conservation of liquid tasks and spatial awareness tasks. He found that the ability to conserve came later in the aboriginal children, between aged 10 and 13 (as opposed to between 5 and 7, with Piaget's Swiss sample). HOWEVER he found that spatial awareness abilities developed earlier amongst the Aboriginal children than the Swiss children. Such a study demonstrates cognitive development is not purely dependent on maturation but on cultural factors too – spatial awareness is crucial for nomadic groups of people. Vygotsky, a contemporary of Piaget, argued that social interaction is crucial for cognitive development. According to Vygotsky the child's learning always occurs in a social context in co-operation with someone more skilful (MKO). This social interaction provides language opportunities and language is the foundation of thought.

3. Evaluate theories of cognitive development (Piaget's & Vygotsky's)

Stage	Progress / Achievements	Limitations	Evidence for	Evidence against
sensori-motor stage **(0 – 2 years)**	Babies/Infants learn connections between their actions and the external world Infants understand the world only through seeing,touching, sucking, feeling, and using their senses to learn things about themselves and the environment	Babies / Infants lack object permanence	Observation's on Piaget's own children	Baillargeon & DeVos (1991) Moving carrot study
pre-operational Stage **(2 – 7 years)**	Child starts to use symbols and words to think (representational thinking) - words - numbers - make believe play - drawing for expression	Child demonstrates; a) egocentrism *(this can be seen through examples of animism and artificialism)* b) Failure to conserve quantities*(decentration & reversibility)*	Three Mountain tasks Conservation tasks	Hughes (1975) Policeman Doll Study Samuel & Bryant (1984)
concrete -operational **(7 – 11 years)**	• Can use simple (concrete) logic an perform simple mental operations *eg, counting, measuring* Have also acquired the skills of; • Reversibility and decentration • Conservation: • Seriation & Classification • Concrete Transitivity (a kind of deductive logic, entertaining three concepts or relationships at the same time. 'if…..then' reasoning	However these mental operations cannot be carried out purely in the child's head – the physical (or concrete) presence of objects is needed		Dasen (1994) showed that different cultures achieved different operations at different ages depending on their cultural context Greenfield (1966) that schooling influenced the acquisition of such concepts as conservation
formal - operational **(11 years +)**	• Abstract thinking (inc. ability to follow the abstract form of if……then ' arguments) • Scientific reasoning – *(hypothetico-deductive) form hypotheses, determine how to test each one against the facts, and rule out those that prove to be wrong.* • Idealistic thinking	NONE, The child is potentially fully cognitively developed	Pendulum tasks	It is controversial whether many adults ever actually reach the formal operations stage (Connel et al, 1975)

Evaluation of Piaget

Piaget's impact on psychology

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His theories have received a lot of support over many years, and whilst his theories have been subject to modification and criticism many fundamental aspects of his theories are still accepted as valid and relevant.

Methodology

Sample

Many of these criticisms concern his research methods. Piaget studied his own children and the children of his colleagues in Geneva in order to deduce general principles about the intellectual development of all children. Not only was his sample very small, but it was composed solely of European children from families of high socio-economic status. Researchers have therefore questioned the generalisability of his data.

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Competence V Performance (over-under estimates)

Piaget failed to distinguish between competence (what a child is capable of doing) and performance (what a child can show when given a particular task). When tasks were altered, performance (and therefore competence) was affected. Therefore Piaget may have underestimated children's cognitive abilities.
For example a child might have object permanence (competence) but still not be able to search for objects (performance). When Piaget hid objects from babies he found that it wasn't till after 9 months that they looked for it.

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Role of social cultural factors

As Piaget saw children as largely independent and isolated in their construction of knowledge and understanding of the physical world he has been criticized for failing to emphasize the role of social support and culture.

Dasen (1994) cites studies he conducted in remote parts of the central Australian desert with 8-14 year old Aborigines. He gave them conservation of liquid tasks and spatial awareness tasks. He found that the ability to conserve came later in the aboriginal children, between aged 10 and 13 (as opposed to between 5 and 7, with Piaget's Swiss sample). HOWEVER he found that spatial awareness abilities developed earlier amongst the Aboriginal children than the Swiss children. Such a study demonstrates cognitive development is not purely dependent on maturation but on cultural factors too – spatial awareness is crucial for nomadic groups of people.

Vygotsky, a contemporary of Piaget argued that social interaction is crucial for cognitive development. According to Vygotsky the child's learning always occurs in a particular social context in co-operation with someone more skilful (MKO). This social interaction provides language opportunities, language is the foundation of thought All children have their own ZPD's (range of learning) and it is only with guidance through that zone that cognitive development will occur. This is supported by studies such as McNaughton & Leyland's jigsaw study in which children could complete harder puzzles only when aided by their mothers.

4.Discuss how social and environmental variables may affect cognitive development

example exam approach - In this answer I will discuss how social and environmental variables – diet and parenting - affect cognitive development. I will conclude with a study showing how social and environmental variables interact with biological factors to affect cognitive development.

Diet

Diet and nutrition is fast becoming a social issue as obesity rates increase in the USA and in Europe. But poor diet can also have effects on cognitive development as well as body mass. Northstone et al (2010) monitored 4,000 children in the UK from birth through to age 8. Research showed that children under the age of four who regularly ate processed food, fat and sugar had a lower intellectual performance at the age of eight and a half. According to the study the children's IQ scores fell by 1.67 for every increase on a chart reflecting the amount of processed fat in their diet

Conversely the positive effects of a healthy diet have been well researched. Hibbeln et al. (2007) compared two groups of women (those consuming high levels of omega- 3 fatty acids and those consuming low levels of the same). They found the children of those mothers who had a low seafood intake during pregnancy had lower motor (movement and coordination) skills and lower social development and communication skills than the children of mothers who consumed high levels of seafood. Raloff (1989) studied 1023 6th-grade children over the course of one year and found those who were given free school breakfasts improved their maths and science scores

Parenting

In the USA, the Michigan Department of Education (MDE, 2002) argued that the most consistent predictors of a child's academic achievement and social adjustment were parent expectations: parents of high-achieving students set higher standards for their children's educational activities than parents of low-achieving students and this drove educational achievement and therefore cognitive development. The MDE stated that when parents are involved, students have:

- higher grades, test scores and graduation rates
- increased motivation and better self-esteem
- better school attendance
- lower rates of suspension
- decreased use of drugs and alcohol
- fewer instances of violent behaviour.

Family participation in education was twice as predictive of students' academic success as family socio-economic status; the more intensely parents were involved, the more beneficial the achievement effects. For example, children who practise reading at home with their parents, make significant gains in reading achievement compared to those who practise only at school (Tizard et al., 1982). But this has wider implications, as parents who read to their children are also more likely to have more books available, take trips together as family, monitor TV watching, and provide stimulating experiences which together contribute to cognitive development.

Conclusion

Evans & Schamberg (1994)

It is unlikely that social and environmental factors alone can influence cognitive development. Schamberg & Evans (1994) argued it is an interaction of these factors *with biological factors* that best explain difficulties in cognitive development. They tested this hypothesis by using the results of an earlier, long-term study of stress in 195 poor and middle-class Caucasian students, half male and half female. In that study, which found a <u>direct link</u> between poverty and stress, students' blood pressure and stress hormones were measured at 9 and 13 years old. In this study, earlier participants, now aged 17, had their memory was tested. Working memory is considered a reliable indicator of reading, language and problem-solving ability — capacities critical for adult success. Given a sequence of items to remember, teenagers who grew up in poverty remembered an average of 8.5 items. Middle-class teenagers remembered an average of 9.44 items.

<u>In lab animals</u>, stress hormones and high blood pressure are associated with reduced cell connectivity and smaller volumes in the prefrontal cortex and hippocampus. It's in these brain regions that working memory is centered. Evans and Schamberg argued that the study demonstrated that the stress associated with poverty had a negative effect on the cognitive development of poor children. However such a study is correlational, and does not imply cause and effect.

5. Examine attachment and its role in the subsequent formation of relationships

Bowlby's ethological / evolutionary theory

Until the 1950s, most psychologists believed that babies become attached to their primary carer because they associate them in some way with being fed. However, Bowlby proposed that attachment was important not just for survival but emotional survival and protection. He argued that infants are biologically predisposed (born) to form attachments and to seek attachment figures to protect them.

The child forms a mental representation of their first attachment relationship - which he called an internal working model. If the child internalizes a working model of attachment as secure, warm and reliable this serves as a schema for future relationships. Bowlby's theories had, and continue to have an enormous impact on child development, particularly in the area of parenting and social policy.

He was influenced by the work of ethologists such as Harlow (1962), noting that other species apart from humans formed attachments. In Harlow's study monkey's infant monkey's preferred to cling to a toweled wire monkey, than one that dispensed food. This study, although now considered unethical demonstrated the importance of comfort, even to monkeys. Furthermore animal studies are hard to generalize to humans.

According to Bowlby infants display an innate tendency to become attached to one particular individual. He called this monotropy. He suggested this tendency was qualitatively different from any subsequent attachment a child might form. However, this has been challenged by Schaffer & Emerson's (1964) study who found that infants in Glasgow had multiple attachments by the age of 18 months. These included fathers, brothers, sisters, grandparents and close neighbours.

Bowlby argued there was a critical period for attachment, the first 2-3 years of life. He based this on the work of Karl Lorenz (1937) who observed that a newly hatched set of goslings followed around the first object they saw – ie. him (known as imprinting).

Bowlby believed that if this bond is not formed, or is broken, then there would be permanent emotional damage because children only develop socially and emotionally when an attachment provides them with feelings of security. This became known as the maternal deprivation hypothesis, which states that continual disruption of the attachment between infant and primary caregiver (i.e. mother) could result in long term cognitive, social, and emotional difficulties for that infant.

To support his hypothesis, he studied 44 adolescent juvenile delinquents in a child guidance clinic. Through interviews he diagnosed 32% (14) of the thieves as 'affectionless psychopaths' (having no affection for others and no shame or sense of responsibility). 86% of these 'affectionless psychopaths' had experienced a long period of maternal separation before the age of 5 years (they had spent most of their early years in residential homes or hospitals and were not often visited by their families. However it is important to bear in mind that the research was **correlational** and non-experimental. It contained gender and researcher bias.\

Mary Ainsworth: classifying and explaining types

A number of researchers have expanded the work of Bowlby, to include identifying and classifying attachment types and researching the factors associated with the development of attachments.

Ainsworth (1969) sought to develop a reliable method of measuring quality of attachment using a laboratory procedure called the Strange Situation. It is still the most commonly used method for measuring the level of attachment between the infant and the mother. The rationale behind the Strange Situation is that infants display different behaviours towards the primary caregiver and towards strangers according to the security of attachment. The Strange Situation has eight episodes each lasting 3 minutes. Although every aspect of the participants' reactions are observed and videotaped, what's most carefully attended to is the child's response to the mother's return. The eight episodes of the 'Strange Situation' are shown below.

Table 14.1	The Episodes of the Strange Situation	
Episode	Events	Attachment Behavior Observed
1	Experimenter leaves parent and baby to play	
2	Parent sits while baby plays	Use of parent as secure base
3	Stranger enters, talks to parent	Stranger anxiety
4	Parent leaves; stranger lets baby play, offers comfort if needed	Separation anxiety
5	Parent returns, greets baby, offers comfort if needed; stranger leaves	Reactions to reunion
6	Parent leaves	Separation anxiety
7	Stranger enters, offers comfort	Stranger anxiety; ability to be soothed by stranger
8	Parent returns, greets baby, offers comfort, lets baby return to play	Reactions to reunion

SOURCE: Based on Ainsworth et al., 1978.

Based on the Strange Situation, Ainsworth (1978) proposed three types of attachment

Type A – insecure attachment (avoidant) these children play independently and do not show distress when the mother leaves nor make contact when she returns. Between 20-25% if British children ages 12-18 months are classified as type A

Type B – secure attachment; these children play independently an do not show much distress in episodes 3 and 4. They greet the carer positively when she returns. They are likely to be distressed in episode 6 when left alone. They require and accept comfort from the carer in episode 8. Between 60-75% of British children are classified as type B

Type C – insecure attachment (resistant); these children explore less in episode two than others. They are very distressed on being left with a stranger but, although they rush to their carer on her return, they do not readily accept comforting. Around 3% of British children and 15% of American children are classified as type c.

Support for the universality come from cross cultural studies. Ijzendoorn & Koonenberg, (1988) found that secure attachment type B was the most common attachment type across the world. However, there were significant cultural variations in insecure attachments which demonstrate that universality is limited. Variations in insecure attachment could be a result of child-raising practices and environmental factors. It could also show that the strange situation is an imposed etic.

The Strange Situation is a laboratory based procedure, and represents a rather artificial approach to the study of attachment. Bronfenbrenner (1979) pointed out that infants' attachment behaviours are typically much stronger in the laboratory than they are at home. The behaviour of the stranger is very artificial in the set – up.

The role of early attachment in the subsequent formation of relationships Hazan & Shaver (1997)

Attachment theory assumes that internal working models continue throughout the lifespan and research shows there may be some relationship between the experience of attachment in childhood and adult love relationships.

 Hazan & Shaver wanted to see if there was a **correlation** between the infant's **attachment type** and their future approach to romantic relationships. **T**o test this Hazan & Shaver devised the *'Love Quiz'* which consisted of 2 components:-

- A measure of attachment type - a simple adjective checklist of childhood relationships with parents and parents' relationships with each other
- A love experience questionnaire which assessed individual's beliefs about romantic love - eg: whether it lasted forever, whether it could be found easily, how much trust there was in a romantic relationship, etc

The *Love Quiz* was printed in local newspaper the *Rocky Mountain News* and readers were asked to send in their responses. Hazan & Shaver analysed the first 620 replies sent in from people aged from 14 to 82. They classified the respondents' according to **Mary Ainsworth's** infant attachment types of *secure*, *anxious-resistant* and *anxious-avoidant* and looked for corresponding adult love styles . Hazan & Shaver found a strikingly high correlation between the infant attachment types and the adult romantic love styles.

They found that;

1.   Secure types described their love experiences as happy, friendly and trusting - emphasising being able to accept their partner regardless of any faults - with such relationships tending to be more enduring, with the initial passion reappearing from time to time and for some 'romantic love' never fading.They were happy depending on others and comfortable if others are dependent on them. They were happy to be close to others.
2.   Anxious-resistant types experienced love as involving obsession, a desire for reciprocation, emotional highs and lows, extreme sexual attraction and jealousy, and worry that their partners didn't really love them or might abandon them. Their desire for intense closeness could frighten others away.
3.   Anxious-avoidant types typically feared intimacy, emotional highs and lows, and jealousy and believed they did not need love to be happy. They were uncomfortable being close to and/or depending on others.

Hazan & Shaver concluded that there was evidence to support the concept of the inner working model having a life-long effect. However it is important to bear in mind that people were recording their memories of infant experience and such memories may not always be accurate. Similarly they may have given socially desirable answers

6. Discuss potential effects of deprivation or trauma in childhood on later development
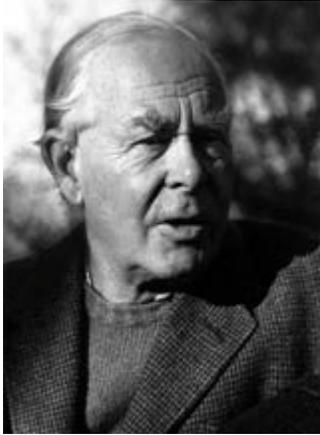
According to Bowlby if the attachment figure is broken or disrupted during the critical two year period the child will suffer irreversible long-term consequences of this maternal deprivation.

Bowlby used the term maternal deprivation to refer to the separation or loss of the mother as well as failure to develop an attachment.

The underlying assumption of Bowlby's Maternal Deprivation Hypothesis is that continual disruption of the attachment between infant and primary caregiver (i.e. mother) could result in long term cognitive, social, and emotional difficulties for that infant. To support his hypothesis, he studied 44 adolescent juvenile delinquents in a child guidance clinic.

44 Thieves Study (Bowlby, 1944)

Aim: To investigate the effects of maternal deprivation on people in order to see whether delinquents have suffered deprivation. According to the Maternal Deprivation Hypothesis, breaking the maternal bond with the child during the early stages of its life is likely to have serious effects on its intellectual, social and emotional development.

Procedure: Between 1936 and 1939 an opportunity sample of 88 children was selected from the clinic where Bowlby worked.

- Of these, 44 were juvenile thieves and had been referred to him because of their stealing. He diagnosed 32% (14) of the thieves as 'affectionless psychopaths'.(having no affection for others and no shame or sense of responsibility)
- The other 44 'controls' had been referred to him due to emotional problems - though they did not display anti-social behaviour.
- On arrival at the clinic, each child had their IQ tested by a psychologist who also assessed the child's emotional attitudes towards the tests. At the same time a social worker interviewed a parent to record details of the child's early life. The psychologist and social worker made separate reports. A psychiatrist (Bowlby) then conducted an initial interview with the child and accompanying parent.

Results: Bowlby found that 86% **of the 'affectionless psychopaths' in** group 1 ('thieves) had experienced a long period of maternal separation before the age of 5 years (they had spent most of their early years in residential homes or hospitals and were not often visited by their families)

 Only 17% of the thieves not diagnosed as affectionless psychopaths had experienced maternal separation. Only 2 of the control group had experienced a prolonged separation in their first 5 years.

Conclusion: Bowlby concluded that maternal separation/deprivation in the child's early life caused permanent emotional damage. He diagnosed this as a condition and called it Affectionless Psychopathy. According to Bowlby, this condition involves a lack of emotional development, characterised by a lack of concern for others, lack of guilt and inability to form meaningful and lasting relationships

The sample was not representative and contained **gender bias**.

Bowlby's research was in the form of highly-detailed and thoroughly-comprehensive **case studies**. While these generally provide rich sources of information and Bowlby's were **triangulated**, it is dangerous to **generalise** from case studies as their findings are unique to the case being studied.

The research was **correlational** and non-experimental; for ethical reasons separation/deprivation cannot be manipulated as an **independent variable**, - thus, cause and effect cannot be inferred. Ie: it cannot be said that separation/deprivation causes emotional damage or Affectionless Psychopathy. Other factors, such as conflict in the family, may have led to these outcomes. Thus, as Rutter (1972) pointed out, Bowlby's conclusions were flawed, mixing up cause and effect with correlation.

The study was vulnerable to **researcher bias**. Bowlby conducted the psychiatric assessments himself and made the diagnoses of Affectionless Psychopathy. He knew whether the children were in the 'theft group' or the control group. Consequently, his findings may have unconsciously influenced by his own expectations. This potentially undermines their validity.

The case of Genie (Curtiss, 1977)

Genie is the pseudonym for a child who spent nearly all of the first thirteen years of her life locked inside a bedroom strapped to a potty chair. She was a victim of one of the most severe cases of social isolation in American history. Genie was discovered by Los Angeles authorities on November 4, 1970.

Curtiss has described the case of Genie. Genie was discovered and rescued at the age of 13 years. She had been kept tied to a potty by day and tied into a sleeping bag at night by her father who believed that she was brain-damaged. Genie was regularly beaten, especially when she tried to communicate verbally, and she received virtually no intellectual stimulation or affection. She had developed little language and she was indifferent to adults. When rescued Genie was fostered for a time by a teacher, then by one of the psychologists studying her. She showed consistent progress and developed limited language and attachments to her carers. However, when funding for the research was withdrawn she was returned to Social Services and cared for by a succession of foster-parents. In one foster-home she was severely beaten for vomiting, and this traumatised her greatly, causing her to lose the language skills and emotional stability she had developed. She was briefly reunited at this point with the psychologists, to whom she expressed considerable anger. Genie was eventually settled with an adult foster-carer, who understandably did not wish her to have anything to do with psychologists again. Such a study shows how although certain aspects of early deprivation and trauma may be overcome such the ability to form attachments (socio-emotional development) other aspects – such as language (cognitive development) may be more difficult. However this case has to many confounding variables to draw firm conclusions.

Evaluation:

- Genie experienced a number of foster carers and changes, she was also physically abused again. These factors may have confounded studies that attempted to measure her progress.
- Furthermore Genie may have been born mentally challenged, further confounding progress reports

Rutter et al (2001)

A study of 111 Romanian adoptees (drawn from a larger sample of post-institutionalized Romanian children adopted into the UK) placed before 24 months. On arrival in the UK they were physically and mentally underdeveloped. This was compared with 52 UK-born adoptees placed before 6 months, found significant differences in the distribution of attachment classifications between organized (secure, avoidant, ambivalent) and not organized (disorganized or insecure-other) classifications at age 4. He found significant differences in 3 areas;

- 50% of the non-deprived UK adoptees were classified as secure, while only 37.5% of the deprived Romanian adoptees were found to display this attachment type. Insecure attachement was shown through lack of clear differentiation between adults, easily going off with a stranger and not checking with their adoptive parents in anxiety-provoking situations.
- The Romanian (later-placed) sample of children suffered more cognitive impairment than the UK sample
- There was more impairment in social functioning amongst the Romanian children "near autistic features.

However, Rutter did find that endure the most longer lasting deprivation were 'normally functioning' by the age of six. This lends some support to Bowlby's critical period (as all children had parents by aged 2). Its also highlights the role of 'resilience' in children and finally, the idea that it is possible to recover from the adversities of a deprived childhood.

7 & 8. Define resilience and discuss strategies to build resilience

Amongst children who experience adverse circumstances some children may go on to develop mental health problems and criminality, whereas many more do not. One explanation for these differences may be found in the concept of 'resilience'

> "resilience refers to the process of, capacity for, or outcome of successful adaptation despite challenging or threatening circumstances'

Whether a child will have a positive or negative outcome depends on the number of risk factors present and the number of protective factors. Therefore resilience in a child is most likely a result of reduced risk factors and a high number of protective factors.

Risk factors do not invariably lead to negative outcomes but increase the probability of problems later in life. Negative outcomes include school failure, psychiatric problems, criminal involvement, vocational instability and poor social relationships later in life. Parent conflict, family breakdown, poverty, social isolation, criminal family background and belonging to a minority group are among the most common risk factors cited by developmental psychologists. Research also shows that it less significant *which* risk factors are present, but *how many* are present in the life of a child.

Protective factors include intelligence and temperament, secure attachments, authoritative parents, socio-economic resources and social support.

Kauai Longitudinal Study (Werner & Smith, 1998)

This is supported by the Kauai longitudinal study. It involved a multi-racial cohort of 698 children, born in 1955 who were studied at 6 intervals between the ages of 1 and 40.

Of the sample, 30% had experienced a cluster of risk factors. Of this 30% two-thirds of the children had experienced four more risk factors. The researchers identified the following risk factors **– p**overty, low maternal education, family conflict and breakdown, parental desertion , parental alcoholism and parental mental illness. In this group they discovered serious learning or behaviour problems at age 8, and delinquency, mental health problems and teenage pregnancy at age 18.

However, one-third of this group *did not* show any negative outcomes. Werner & Smith identified some of the following protective factors - easy temperament, at least average intelligence, close attachments, positive attention, three or fewer siblings and religious faith. These children had developed into competent, confident and caring adults who succeeded in their school, home and social lives.

Strategies to build resilience

Research shows that resilience can be cultivated by providing and promoting protective factors in a child's life. As a place where young people spend much of their daily lives, schools are best placed to implicitly and explicitly foster resilience. According to Sagor (1996) and Wang et al. (1994), schools can provide support to students, particularly those at risk, through resilience-building experiences that focus on five themes:

• competency (feeling successful)

• belonging (feeling valued)
• usefulness (feeling needed)
• potency (feeling empowered)
• optimism (feeling encouraged and hopeful)

Ackerman (1997) argues schools can also be more explicit in developing resilience in children, particularly those who have been hit by hardships such as family breakdown. . He outlines how group therapy, peer therapy, classroom meetings, individual counselling, and play therapy all build resilience if delivered consistently.

Government programmes

The New York Center for Children noted in 2004 that 872, 000 children were abused or neglected in America. They also stated that 81% of all deaths from child abuse comprised those of infants and toddlers. They propose the following strategies for building resilience and preventing further abuse.

- **Head Start programmes** - Head Start is a US programme designed to help children from birth to age five, who come from families at or below the poverty level. The goal of Head Start is to help these children become ready for kindergarten, and also to provide needed requirements like health care and food support. President Lyndon Johnson approved Head Start in 1965 as part of his more comprehensive program that he termed the War on Poverty. Tove et al. (2005) found parents who participated in Early head start programmes became more emotionally supportive, better at stimulating language development, and used less corporal punishment.
- However a 2010 government commissioned Impact Study found that Head Start might be ineffective. The Impact Study took advantage of the fact that most Head Start centers across the nation have waiting lists of parents wishing to enroll their children in the program. Using a random, lottery-like process, 3-year-olds and 4-year-olds on the waiting list were offered the opportunity to enroll. This resulted in two groups (or experimental "conditions") — children who were offered the chance to enroll in Head Start and those who were not. Both groups were followed to the end of first grade. Evidence suggests that the achievement of children who applied but were not randomly assigned to a spot in a Head Start classroom had caught up to Head Start students' achievement levels by first grade.
- **After-school programmes** in all high-risk communities - Mahoney et al. (2005) carried out a longitudinal study of the effect of after-school programmes on the development of academic performance and motivation for disadvantaged children. They found participants who participated in a full year's after-school programme achieved better test scores, reading achievement, and over all motivation.
- **Home-visit programmes** - Such programmes have been shown to be effective in reducing child abuse particularly in low-income families. They serve a practical purpose in increasing access to healthcare and also provide a psychological boost, lowering rates of maternal depression and thus enhancing the formation of attachment between mother and baby. They serve to remind the mother of her obligations to care for the child and demonstrate a wider social interest in her parenting skills.
- **Teen-mother parent education** - Britner and Reppucci (1997) found groups for adolescent mothers were effective in providing peer support and reducing social isolation and depression. The programme also involved the extended family in the baby's care providing a wider social support network for new mothers.

9.Discuss the formation and development of gender roles

example exam approach - In this answer I will discuss the formation of gender roles from three different perspectives – biological, cognitive and social learning.

Biological theories

The biological approach assumes gender differences and therefore gender roles are a result of sex differences in biological processes.

Women and men are chromosomally different. Women have two X chromosomes (**XX**), whereas men have an X and a Y chromosome (**XY**) despite the fact that in the period following conception, female and male embryos are indistinguishable apart from their chromosomes.

After the embryonic development of the sex glands, **hormones** which are powerful chemical substances, are secreted into the blood stream and reach every cell of the embryo. These hormones form a defined reproductive tract in females and tell a male's reproductive tract not to form. The hormones also force the development of external genitalia (sex organs on the outside of the body). Finally, the hormones travel to the **brain** and cause differences between males and females to occur there. A bio-psychologist would argue that it is these differences in brain development, and the differences in brain activity caused by the secretion of certain hormones in during puberty, that cause men to behave differently from women (e.g. acting more aggressively). In other words, women and men act, think and feel differently because of differences in how their brains work.

For example some researchers argue that testosterone has a masculinizing effect on the brain of the developing child and this can explain behavioural differences as well as gender identity in children. Testosterone, which is produced in greater quantities by men, affects several types of behaviour, some of which are regarded as 'typically male'. Dabbs et al (1995) found that violent offenders had higher testosterone levels than non-violent offenders).

Conversely women have higher levels of oxytocin than men. Oxytocin seems to affect the formation of bonds and attachments between people, and this has been used to explain the more nurturing and emotionally responsive qualities usually attributed to women.

Evaluation

- Gorski et al (1985) injected female rats with testosterone for a period prior to birth. After they were born their appearance and behaviour was compared with a control group of females whose testosterone levels had been normal. The experimental group had masculinised genitals (e.g. an enlarged clitoris) and showed masculine behaviour (e.g. trying to mount other females). This showed that male sex hormones had both physiological and behavioural effects, in rats at least.

- It is clear from a range of studies involving humans and other animals that chromosomal and hormonal differences between males and females affect a range of masculine and feminine behaviours, which supports the biological view. This is clearly shown in the case of Bruce/Brenda (later, David) Reimer in which a biological boy raised as a girl always felt like a boy, and went on to have surgery to revert back to being a boy.

- The biological view of gender is supported by those cross-cultural studies that have found universal features of gender. For example, in all cultures studied, men are found to be more aggressive than women, which suggests an innate, biological difference.

- However, much of this research is correlational. Consequently, whilst it indicates a relationship between, for example, testosterone levels and risk taking, it does not indicate the direction of causality. Whilst higher testosterone might cause people to make riskier decisions, it might also be that the process of taking risks causes testosterone levels to rise.

- However, it is important not to ignore the fact that there are considerable differences between some cultures in their gender behavior (mead, 1935)

Social learning theory

According to social learning theory (Bandura, 1977) the development of gender roles occurs as a result of the child's experiences, and not biology. In general terms the child learns to behave in ways which are rewarded and to avoid behaving in ways which are punished. Since society has expectations about the ways in which boys and girls should behave, such rewards and punishments lead to sex-typed behavior. This is known as direct tuition – Fagot (1989) carried a longitudinal study and observed that parents encouraged sex-typed behavior and discouraged sex-inappropriate behavior even before the age of 2. Boys were reinforced for playing with gender appropriate toys (e.g. bricks) and punished for playing with dolls. Girls were reinforced for staying close to the parent and punished for rough and tumble play.   Parents making most use of direct-tuition tended to have children who behaved in the most sex-typed way.

Evaluation

- This theory takes into account the social and cultural context in which gender socialization occurs
- A number of other studies have shown that girls and boys are reinforced and punished for different behaviours. For example Dweck et al (1978) found that teachers reinforced boys for getting things right but reinforced girls for working neatly. Sroufe et al (1993) observed children around the age 10-11 years, and found that those who did not behave in a gender-stereotyped way were the least popular. Such a study indicates that children establish a kind of social control in relation to gender roles very early, and it may well be that peer socialization is an important factor in gender development.
- HOWEVER the theory does not explain the degree of difference in which individual boys and girls conform to gender role stereotypes.
- The theory suggests that gender is more or less passively acquired. However children are active participants in their socialisation process, and they perceived and understand their experiences differently as they develop cognitively. Gender identity is a complex process that involves cognitive as well as environmental and biological factors.

Gender schema theory (Martin & Halvorson, 1978)

Gender schema theory is based on the assumption argue that early cognitive processes play a key role in gender development.

Children form cognitive schemas about gender as soon as they discover and are able to categorise their own sex.The establishment of this basic gender identity (2-3 years) motivates children to learn about the sexes and start building a gender schema.

First, children contruct an in-group schema (for their own sex) and an out-group schema (for the opposite sex).Such schema includes a broad categorisation of objects, behaviours, and traits as being either for boys or for girls (eg. trucks are for boys, dolls are for girls)

These schema determine what boys focus on and what girls focus on. Such focus leads to the construction of a second schema, the 'own sex' schema. This involves gathering more detailed information about those behaviours, traits, and objects that are considered to be characteristic of their in-group (sex)

So for example a girl who has a basic gender identity might first learn that dolls are for girls, and trucks for boys, and because she is a girl and wants to act consistently with her self-concept may gather more information about dolls to add to her own-sex schema, whilst largely ignore information about trucks and cars

Once formed gender schemas structure experience by providing a framework for making sense of the social world. According to this theory children are more likely to encode and remember information consistent with their gender schemas and to either forget or distort schema – inconsistent information.

Support for this idea can be seen in a study by Martin & Halvorson (1983). The researchers used a sample of boy and girls aged 5-6 years.They showed them pictures of males and females in activities that were either gender consistent (girls playing with dolls) or gender inconsistent (girls playing with guns). A week later the children were asked to remember what they had seen on the pictures. The researchers found that the children distorted the scene to reveal gender consistent behavior (eg. by saying it was a boy that was playing a gun, not a girl

Evaluation

- This research gives some insight into why inaccurate gender schemas/ stereotypes persist. Gender schemas are maintained because children pay attention to and remember information that is consistent with these schemas
- However, it is not clear why gender schemas develop and take the form that they do

Conclusion: Interaction

However, these factors alone cannot fully account for the development of gender roles. An interactive perspective assume a number of biological, cognitive and social processes account for gender role. Fr example biological development occurs before birth. The baby's sex influences how the child is labelled and treated accordingly. Early gender typing occurs due to reinforcement of same sex activities. As a result by 3 years the child forms a basic gender identity leading to the development of gender schemas. More attention is directed towards same sex models. Children continue to learn appropriate gender roles based on what society portrays through its gender curriculum (Shaffer, 2002).

10. Explain cultural variations of gender roles

Cross- cultural studies of gender can help determine to what extent culture plays a role in creation and maintenance of gender roles. Research seems to lend weight to arguments that gender role is universal, and therefore possibly biological. But some research suggests that gender roles are a learned phenomena, and that culture is the socializing agent

Most traditional cultures distinguish between men's and women's work but Mead's study shows that labour division is not the same in all cultures, thus challenging the view that gender roles are innate (biological) and universal.

Berry, Bacon and Child (1991*)*

Studied socialization pressures in 110 non – industrialised countries. They considered 5 characteristics – nurturance, responsibility, obedience, achievement, self –reliance.

They found some widespread universal patterns in gender roles - boys are *instrumental* and girls are *expressive .*

75% of these non-industrialised nations expected girls to be more nurturing
55% of nations expected girls to be responsible
79% of nations emphasized achievement in boys
77% of nations expected more self-reliance in boys

Mead (1935*)*

Classic study of societies in Papua New Guinea showed there were both similarities and differences in gender roles across societies. In on society – the Mundugumour – both males and females displayed what we would call masculine behavior – aggressive, competative, emotionally unresponsive with little interest in the children. In contrast the Arapesh were warm, emotional andgentle , regardless of their gender. The ideal in their society was the equivalent to our ideas of femaleness. Men and women shared the tasks relating to the crops and children.

Finally, the Tchambuli were the opposite of traditional gender roles; men spent a lot of time gossiping and discussing adornments, whilst the women were responsible for food, clothes and tool production.

The role of culture can also be seen in the changes in gender roles over the last 50 years. In western cultures women have steadily entered the labour market, and whilst there still exist specific gender roles (still more men are plumbers and engineers, and women primary schoolteachers and nurses) gender roles are slowly converging. Women occupy positions of power, are firefighters and soldiers (although they still can't fight on the frontline), men are becoming homemakers, nurses and child carers. A research study by Renicke (2006) revealed that young Danish fathers believe it is important for them to have close contact with their baby and take part in caring for the child. This clearly supports Mead's argument that gender role differences reflect cultural norms and expectations.

11.Describe adolescence

In the western world adolescence is described as the period of life from puberty to adulthood (roughly ages 12 – 20) characterized by marked physiological changes and psychological changes.

The biological transition of adolescence, or puberty, is perhaps the most observable sign that has adolescence has begun. Technically, puberty refers to the period during which an individual becomes capable of sexual reproduction. More broadly speaking, however, puberty is used as a collective term to refer to all the physical changes that occur in the growing girl or boy as the individual passes from childhood into adulthood. Although all adolescents experience the same physical changes the timing of physical maturation varies widely.

There are two types of physical changes that occur during puberty:

a)changes to primary sex characteristics and b) changes to secondary sex characteristics.

 Primary sex characteristics refer to changes to the sexual organs themselves (uterus, vagina, penis, and testes). Secondary sex characteristics refer to other visible changes that mark adult maturation such as changes in height and body shape. The physical changes of puberty are triggered by hormones, chemical substances in the body that act on specific organs and tissues.

	Primary sex characteristics	Secondary sex characteristics
Boys	Enlargement of the testes, penis, prostate gland	Growth spurt Broadening of shoulders Facial and bodily hair Breaking of the voice
Girls	Primary sex characteristics	Secondary sex characteristics
	Maturation of the uterus, vagina, and other parts of the reproductive system. Onset of menarche (period)	Body fat around and widening of hips Breast development

12.Discuss the relationship between physical change and development of identity during adolescence

Such rapid physical changes inevitably lead to psychological change. These rapid physical changes affect the way the adolescent perceives him or herself . So begins an exploration of their identity – physical, sexual and psychological.

Body image lies at the heart of adolescent identity. A positive self-identity can be dependent on positive adjustment to the physical changes of puberty.   There is a difference in the way girls and boys adjust to these changes.

'The *cultural ideal hypothesis'* (Simmons & Blyth, 1987) states that puberty brings boys closer to his physical idea through growth in height and muscle but take girls further away from the prevailing lean female ideal though increased tissue fat.

Through the media, girls are subject to highly valued images of an extremely thin female body. In order to have a positive adjustment to physical changes girls assess changes in their body in terms of whether they are becoming more or less physically attractive. If their body appears to be far from the cultural ideal of slimness that dominates the West, they perceive it as less attractive. They develop a negative body image and low self-esteem.

Boys on the other hand express more satisfaction and pride in their changing body than do girls. In order to have a positive adjustment to physical changes evaluate themselves on such factors as body efficiency and physical ability. As most boys do develop into terms of height and muscle, and therefore strength, dissatisfaction tends to be low.

There are however cultural differences in perceptions of body image. Recall the study by Jaegar (2003) who identified certain cultures being more dissatisfied with their body image than others. Similarly, Ferron (1997) examined beliefs about body image in a sample of aged 13-17 French and US adolescents. Although samples from both countries had similar perceptions about ideal body image the two samples differed in terms of beliefs about control of body image. The US sample believed the body is a representation of diet, exercise and will-power, whilst the French believed that body shape /size is more predetermined (biological predisposed). The former set of beliefs puts pressure on adolescents to attain the ideal body shape, and is more likely t make them feel guilty about not achieving it.

The cultural ideal hypothesis and studies such as those mentioned above highlight that whilst the physical changes in adolescence contribute to a sense of identity, social (cultural ideals) and cognitive factors (beliefs about body image) also interact with physiological factors to give a sense of identity.

Linked to physical changes is the development of sexual identity . *Sexual identity* is a matter of understanding one's sexual feelings, attractions, and behaviors (Savin-Williams, 1998). Whilst formation of sexual identity may remain an unconscious process for many adolescents, for others it will be a period of experimentation and exploration. The exploration of a sexual identity occurs within the context of the "presumption of heterosexuality" (Herdt 1989) that exists in most cultures. This potentially leaves the homosexual adolescent in a state of confusion.

However it is important to bear in mind that it is not always possible for adolescents to explore their sexuality as it is an area that is heavily influenced by social and cultural norms. Whilst some cultures have a permissive attitude to adolescent sexuality and allow for experimentation - a 2008 study conducted by YouGov (UK government survey website) found that 20% of 14−17-year-olds surveyed revealed that they had their first sexual experience at 13 or under - other cultures are very restrictive and do not allow sexual exploration.

13.Examine psychological research into adolescence

example exam approach - In this answer I will examine psychological research into adolescence by Erikson and Marcia.

Most theories on development have tended to focus on the early years of childhood. Erikson's is one of the few that continue throughout the lifespan. He believed that we all go through eight stages in our lives. He focused on the psychosocial aspects of our development, that is our relationships with ourselves, other people and the social environment.

At each stage we face a particular conflict or issue which Erikson refers to as a crisis. Each crisis need to be resolved to enable further development. Stage 5 is most relevant to adolescent development.

Stage 5 Idenity V Role confusion (Erikson, 1950)

According to Erikson the main challenge of adolescence is to form a clear sense of identity. They are trying to answer the question of 'who am i?". Adolescents are developing an identity in domains such as;

  ➢ Career, occupations
  ➢ Sexual orientation
  ➢ Personal beliefs and values

Adolescents are confronted by the need to establish identities for themselves and this may be challenging since there are strong social and cultural pressures to behave like an adult.

At this point, adolescents may experience an 'identity crisis' but society allows the young person to experiment with and explore different ideas about careers, sexual identity and personal values before adult commitments are made. Erikson called this period a 'moratorium' – a kind of 'time-out' period.

Difficulty in coping with this crisis (for whatever reason) means that the adolescent may continue to be confused about their role in life and may develop an unstable sense of self. To deal with this uncertainty the adolescent may engage in subgroups and develop a negative or socially unacceptable identity.

Evaluation

Erikson's theory has good face validity. Many people find that they can relate to his theories about various stages of the life cycle through their own experiences.

However Erikson's theory is descriptive rather than based on experimental studies. He used the term 'identity 'in many different ways, and because it was never operationalised it wasn't easily testable. He relied mainly on the use of interviews and questionnaires which present problems of interpretation and biased answering.

Eriskon stressed his work was a 'tool to think with rather than a factual analysis'. Its purpose then is to provide a framework within which development can be considered rather than testable theory.

James Marcia (1955)

The most comprehensive analysis and testing of Erikson's fifth stage has been carried out by James Marcia.

Addressing Erikson's notion of identity crisis, Marcia posited that the adolescent stage consists neither of identity resolution nor identity confusion, but rather the degree to which one has explored and committed to an identity in a variety of life domains.

Marcia developed an interview method to measure identity as well as identify four different identity statuses an adolescent could be at. Exploration refers to a period in which adolescents are searching for sensible alternatives before making a commitment to a specific identity. Commitment is the end goal – through experimenting with different types of work, relationships and values adolescents find the ones that suit them best. The level of exploration and commitment indicates the stage (or status) they were at. The four identity statuses are;

1. Identity diffusion (no commitments, no explorations).
2. Identity Moratorium (exploration, but no commitments)
3. Identity foreclosure (commitments, but no exploration)
4. Identity achievement (exploration and commitments)

Figure 2: Marcia's four identity statuses (based on Erikson's theory)

1 Identity confusion

This is the least mature of the four statuses. The young person's identity is diffuse, either because they have not yet experienced an identity crisis, or because they have not resolved it. They have made no commitment to their future, either in work or relationships, or to attitudes or values in life.

2 Identity foreclosure

There is some commitment to goals, values and beliefs, but there has been no identity crisis. Usually the young person has accepted the advice of parents or authority figures without evaluating it. Identity foreclosure can be missed out, with the individual moving directly from identity confusion to moratorium.

3 Moratorium

This relates to identity crisis. The young person experiments with different values, ideas, relationships and work choices. This is done with the aim of developing a stable identity.

4 Identity achievement

The crisis of the moratorium is resolved. A strong commitment is made to an occupation, sexual orientation and a value system, either political or religious.
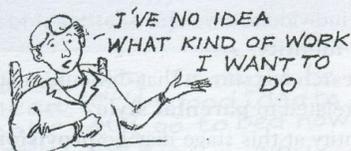

Identity confusion — I'VE NO IDEA WHAT KIND OF WORK I WANT TO DO

Identity foreclosure — I'M GOING TO BE A DOCTOR — ALL MY FAMILY ARE DOCTORS.

Moratorium — I COULD BE A VET···· MAYBE A SINGER··· ···OR GO INTO BUSINESS··.

Identity achievement — I'M GOING TO BE A NURSE-I ENJOY— WORKING WITH PEOPLE - AND BEING ABLE TO HELP THEM.
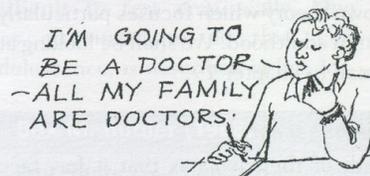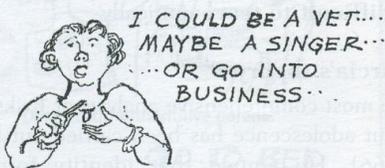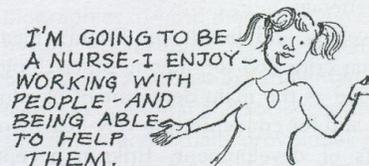
Evaluation

Both Marcia and Erikson see adolescence as a time of personal and social upheaval – Erikson called it a time of 'storm and stress' but is this necessarily the case ?

Rutter (1976) Isle of Wight study

A study of 2,303 14 and 15 year old boys was carried out. There were two areas of study 1. Parent and child conflict and 2. "inner turmoil". Data included questionnaires completed by parents and teacher, together with interviews with some of the sample and psychiatric assessments.

Results: The study found that the average adolescent is not in a state of conflict with their parents, and only 1/5 reported feeling miserable or depressed.

These results question the idea of adolescence as a time of crisis. The study was however dependent on self-report data which questions its reliability.

Mead (1939) Samoa Study

Anthropologist Margaret Mead studied adolescents on the island of Samoa.

Results: She found that adolescents at an early age were familiar with the facts of life, death and sex. Sexuality in particular was treated in an open and casual manner, so the guilt and shame and shame often experienced by western adolescents was avoided. Adolescence in Samoa was in general an uneventful time, since life as a whole was much less complex.

Although now dated studies such as this show both theories contain western bias. Not all cultures have the equivalent of 'storm and stress'

Acknowledgments

This e-book has been written with reference to the following texts;

Erika Cox	Psychology for A Level	2001
John Crane & Jette Hannibal	IB Course Companion: Psychology: Psychology Course Companion	2009
Jennie Brooks Jamison	Levels of Analysis in Psychology: A Companion Reader for Use with the IB Psychology Course	2009
Alan Law, Christos Halkiopoulos and Christian Bryan-Zaykov	Pearson Baccalaureate: Psychology for the IB Diploma	2010
M.Cardwell, E. Clark, E. and C. Meldrum	Psychology for A-Level	2000
Michael Eysenck	Psychology: An international Perspective	2004

All other sources have been referenced

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